THE

# CANADA LANCET

A MONTHLY JOURNAL

—OF—

## MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

EDITED BY

J. L. DAVISON, B.A., M.D., C.M., M.R.C.S., E.

CHARLES SHEARD, M.D., C.M., M.R.C.S., E.

38180
3/3/95

VOL. XXVI.

TORONTO:
DUDLEY & BURNS, PRINTERS, 11 COLBORNE STREET.
1894.

R
11
C3
v.26

# LIST OF CONTRIBUTORS TO VOL. XXVI.

E. A. Spilsbury, M.D., Toronto.
C. W. Cutler, M.D., New York.
H. Arnot, M.D., London.
A. B. Judson, M.D., New York.
Thos. T. Harrison, M.D., Selkirk.
E. J. Boyes, M.D., Oakland, California.
D. Campbell Meyers, M.D., Toronto.
Peter H. Bryce, M.A., M.D., Toronto.
E. B. Shuttleworth, Toronto.
Beverley Z. Milner, M.D., C.M., Toronto.
Murray McFarlane, M.D., Toronto.
W. W. Bremner M.D., Toronto.
J. T. Duncan, M.D., Toronto.
Thos. E. Satterthwaite, M.D., New York.
J. T. Fotheringham, B.A., M.D., Toronto.
Constantine O'Gorman, M.D., Cobourg.
J. O'Dwyer, M.D., New York.
F. R. Sturges, M.D., New York.
D. B. St. John Roosa, M.D., New York.
W. B. DeGarmo, M.D., New York.
J. Algernon Temple, M.D., Toronto.
D. Bryant, M.D., New York.
G. T. Orton, M.D., Winnipeg, Man.
Jas. Newell, Ph.B., M.D., Watford.
Chas. G. Stockton, M.D., Buffalo.
Price-Brown, M.D., Toronto.

# Index to Vol. XXVI.


PAGE

Abortion, Chlorate of Potash in Habitual ..... 111
" Punishment for Procuring ..... 76
A. C. E. Mixture ..... 216
Adenoid Hypertrophy, Prognosis in Neglected ..... 93
Akromegaly, Morbid Anatomy of ..... 179
Alcohol, Moderate Use of ..... 60
" from Physician's Standpoint ..... 210
Alcoholism, Strychnia Nitrate in ..... 287
" Treatment of ..... 53, 121
Ammenorrhœa, Electricity in ..... 254, 318
Anal Fissure, Formula for ..... 254
Anæmia, Iron in ..... 126
Anæsthesia, Local ..... 160
" The Pupils in ..... 311
Anæsthetics, Bright's Disease and ..... 369
Anæsthetizers, Caution to ..... 215
Aneurism, Relation of Syphilis to ..... 223
" Abdominal, Cervical, and Thoracic, Surgical Treatment of ..... 182
Angina Pectoris ..... 81
" " Treatment of ..... 126, 288
Animals, Should Experiment on, be Prohibited ..... 108
" Medicine and Surgery Among ..... 118
Antisepsis, Sir Joseph Lister on ..... 78
Anti-vivisectionists, Cruel ..... 63
Apopolexy ..... 63
" Diagnosis of ..... 63
Appendicitis, By D. Bryant, M.D., N.Y ..... 321
" "The Latest Fad" ..... 344
" Inch and a Half Incision in ..... 249
Asthma and its Analogues ..... 90
" Cardiac ..... 116
" Bronchial ..... 255
" Treatment of ..... 311
Atropine as a Hæmostatic ..... 341

Baby, Care of, during hot months ..... 336
Bacteriological Notes, by E. B. Shuttleworth, Toronto 104
Beef-powder, Home made ..... 351
Benignant Tumor, Change of, into Scirrhus ..... 306
Biliary Calculi, Notes on a case of, by Surgeon-Major G. T. Orton, Winnipeg ..... 324
Biliary pigments, A reaction for ..... 254
Bladder troubles, Borax in ..... 191
Blepharitis Marginalis, Hydrogen peroxide in ..... 184
Blood-letting, Therapeutics of, by Thomas Harrison, M.D., Selkirk ..... 65
Blue-blooded Aristocracy ..... 213
Blush, What is a ..... 254
Bone Marrow Extract in treatment of Anæmia ..... 305
Boric Acid ..... 94
Bougie, Gum elastic, in uterus ..... 348
Brain, Weight of two sides of ..... 82
Breast, Recurrence of cancer of ..... 78
Breech presentation, A sign of ..... 216
" " Diagnosis of ..... 183
Bright's disease, Minor symptoms of ..... 50
Bright's Disease and Anæsthetics ..... 369
Bromoform in Whooping-cough ..... 55
Bronchitis, Chronic ..... 248
Burial alive, Narrow escape from ..... 255
Burns, Epsom salts for pain of ..... 255
" Subnitrate of bismuth in ..... 83

PAGE

Calcium chloride as a hæmostatic ..... 222
Calomel, Fractional doses of ..... 88
Cancer, Parasitism of ..... 212
" Etiology of ..... 301
" Early diagnosis and practical surgery of ..... 304
" of the Uterus ..... 320
" " " Vaginal hysterectomy for, by J. Algernon Temple, M.D., M.R.C.S.E. 295
" Contagiousness of ..... 350
" of stomach, Treatment of ..... 158
Carbolic Acid in surgery ..... 180
Castration, Effects of, on women ..... 141
Central Nervous System and Mind, Observations on the brain of the sheep in diseases of ..... 205
Cerebellar Heredo-ataxia, by Dr. Pierre Marie .. 133, 165
Cervical glands, Treatment of enlarged ..... 153
Cervix and perineum, Deep incision of during labor. 113
Charcot, Prof. J. M., Obituary by Bourneville .. 85, 97
Charities, Abuse of medical ..... 51
Chest pains ..... 183
Children, Heart disease in ..... 138
Child-bed, The binder in ..... 81
Chloral hydrate in labor ..... 253
Chlorobrom in Insomnia ..... 157
" Sea-sickness ..... 47
Chloroform poisoning, Strychnia in ..... 344
" Action of, on the kidneys ..... 24
" as a hæmostatic ..... 116
" as a tænicide ..... 190, 255
Chlorosis, Rest in treatment of ..... 56, 189
Cholera, Is it coming? ..... 314
" Asiatic, Diagnosis and treatment of, by H. Arnott, M.D., London ..... 33
Chorea, Quinine in ..... 83, 95
" Treatment of ..... 152, 187
" and Epilepsy, Relation between ..... 223
" Rheumatic, Nature of ..... 318
Circumcision, The rite of, by J. T. Fotheringham, B.A., M.D., Toronto ..... 202
Claustro-phobia ..... 48
Class-room Notes ..... 110
Clemen's Solution ..... 352
Club-foot, Early management of ..... 312
Cocaine, The use of ..... 119
Codeia, Clinical Notes on ..... 251
Coffee, Effect of, on lacteal secretion ..... Supp. 16
Conception during the puerperal period ..... 151
Conjunctivitis, Hydrogen peroxide in ..... 280
Corporal punishment in schools ..... 112
Consumption, Oil of peppermint in ..... 245
Corns between the toes, Radical cure of ..... 344
Cord, Single ligature of ..... 319
Convulsions, Treatment of infantile ..... 54
Creasote, Poisoning by ..... 348
Criminals and Criminal Anthropology ..... 244
Crotalus Horridus ..... 347
Curretting the puerperal uterus ..... 54
Cystitis in women ..... 286
" Treatment of chronic ..... 72
Cholera Vaccine ..... 370
Clinical Demonstration ..... 371
Co-Existence of Infectious Diseases in the same Individual ..... 377

PAGE

Death as it is ... 248
Depilatory, An Effective ... 255
Dermatology, The use of Iodine, Carbolic Acid and Chloral in, by Dr. C. W. Cutler, N.Y. ... 5
Development, Influence of Erect Posture on ... 73
Diabetes, Forms of ... 63
" Treatment of ... 63
Diarrhœa, Green, Formula for ... 319
Digestion and Soda Bicarb ... 62
Diphtheria, Cause and Treatment of, by Beverley Z. Milner, M.D., Toronto ... 129
Diphtheria Bacillus, Action of Light on ... 342
" Treatment of ... 150
" Petroleum in ... 84
" Pathology of, by Thomas E. Satterthwaite, M.D., New York ... 193
Dislocation of the Atlas on the Axis, with Rotation. 373
Diuretin, Action and Use of ... 115
"Doc." ... 280
Duboisine, Sedative Action of ... 181
Dysmenorrhœa ... 116, 272
Dyspepsia, Fermentative ... 191

Eclampsia, Treatment of ... 214
Education, Higher Medical ... 254
Electricity in Ammenorrhœa ... 254
Emmenagogue, Santonin as an ... 159
Endocarditis Gonorrhœica ... 181
Endometritis, Treatment of ... 62
Eneuresis Diurna ... 75
Epilepsy, Nitro-glycerin in ... 122
" Opium in ... 214
" Restrict meat in ... 285
" Treatment of ... 62, 188, 220
Epistaxis, Mixture for ... 160
Epithelioma, Arsenic in ... 30, 92
" of the Pharyngo-oral cavity, by Constantine O'Gorman, M.D., Cobourg 225
Epsom Salts for Pain of Burns ... 255
Error of the Day ... 169
Erysipelas, Abortive Treatment of ... Supp., 16
" Treatment of ... 151
Ether Anæsthesia in London ... 250
" and Chloroform on Kidneys, Effect of ... 343
Eucalyptus ... 191
Exalgine, The dose of ... 352

Faith Cure, Some Results of ... 84
Fees in England ... 124
Fevers, Period of Incubation in ... 22
Flatfoot, Diagnosis and Treatment of ... 161
Forceps, A Warning About ... 24
" in Labor ... 92
Fracture, Delayed Union in ... 340
Fractures of the Lower End of the Radius, Method for Reduction of ... 373

Gastrectasis, by C. G. Stockton, M.B., Buffalo ... 360
Gastric Digestion, Role of Lactic Acid in ... 176
" Fermentation, Creasote in ... 246
" and Intestinal Dyspepsia ... 284
Gastro-Intestinal Tract, Auto-Intoxication from ... 77
Glycozone, Therapeutics of ... 278
Glycosuria, Chronic ... 223
Goitre, Injection of Iodoform in ... 91
Gonorrhœa at age of 103 ... 309
Gravel, Glycerine in ... 223
Grippe, Recurring ... 155
Guaiacol ... 315
" in Diabetes ... 320
Gynæcological Examination, Erect Posture for ... 159

Hands, Excessive Sweating of ... 125
Hæmatemesis, Ipecac in ... 129

PAGE

Hæmorrhage During Abortion, Rectal Irrigation in . 23
" Uterine, Hydrastin in ... 30, 252
" Intra-Peritoneal ... 58
Hæmorhoids, Reduction of ... 60
Hæmorrhoids, Bloodless Operation for ... 208, 279
" Conservative Treatment of ... 248
Hæmorrhoidal Tumors, Hot water for ... 223
Headache ... 94
Hereditary Ataxia ... 151
Hydrocele, Treatment of ... 158
Hypnotism, Dangers of ... 285
Hypnotics, New ... 89. 337
Hypodermic Solutions, Sterilization of ... 350
Hysterical Joints ... 17

Immunity, Experimental Researches on ... 221
Inebriety a Disease ... 28
" Treatment of ... 236, 311, 387
Infant Feeding ... 377
Infantile Paralysis, Electricity in ... 286
Infection ... 221
Insanity, Indian Hemp in ... 63
Insect Bites ... 377
Intestinal Obstruction, Treatment of ... 172
Intubation in Croup. By J. O'Dwyer, M.D., New York, ... 227
Iodoform, Antiseptic Virtue of ... 83

Japanese Nursery Notes ... 145
Jaundice, Hepatic Massage in ... 31

Laryngitis, Calomel in Pseudo-membranous ... 69
Laryngismus Stridulus, Compression of Phrenic Nerve in ... 307
Laryngismus Stridulus ... 377
Lead Colic, Atropine in ... 116
" Poisoning, Monosulphite of Soda in ... 352
Leeches, To Keep ... 119
Leucorrhœa ... 255
Lightning and the Telephone ... 350
Lithæmia ... 308
" Treatment of ... 351
Liniments, Protection against Poisoning by ... 343
Local Anæsthesia ... 377
Lochia, Quantity of, After Labor ... 53
Locomotor Ataxia, Phosphate Injection in ... 178
" " ... 311
Lodge Practice ... 120

Malignant Tumors, Treatment of, by Innoculations of Erysipelas ... 303
Mammary Tumors, Malignant Tendency of ... 156
" Abscess, A New Treatment of ... 179, 213
Massage in Muscular Rheumatism ... 55
Measles, Paralysis following ... 342
Medical Buccaneer ... 308
" Fees ... 90
" Notes ... 122, 124, 174, 212, 216. 274, 377
Medical Examinations—
Halifax Medical College ... 317
Manitoba Medical College ... 317
Ontario " Council ... 316
McGill University ... 283
Queen's " ... 317
Toronto " ... 315
Trinity " ... 283
Trinity Medical College ... 283
Western University ... 317
Medicine and Therapeutics, Recent Advances in ... 11
Menorrhagia ... 116, 298
Menstruation ... 281
" Scanty ... 338
" Vicarious ... 114
Menthol in Skin Diseases ... 312

PAGE

Method for Reduction of Fractures of the Lower End of the Radius ... 373
Metrorrhagia ... 298
Methylene Blue in Treatment of Malaria and Diphtheria ... 152
Miscarriage, Treatment of Non-preventable ... 42
Monstrosities, Experimental Production of ... 352
Moveable Kidney, Treatment of ... 203
Multiple Neuritis, Arsenic as a Cause of ... 186
Muscular Rheumatism ... 310
" " Painful Joints in ... 175
Myalgia, The Treatment of ... 374
Mydriatic in Examining an Eye for Glasses, Uselessness of. By D. B. St. John Rossa, M.D., LL.D., New York ... 261
Myxœdema, Pathology of ... Supp. 10

Nasal Septum, Treatment of Deflection of. By Dr. E. A. Spillsbury, Toronto ... 1
Naso-pharyngeal Catarrh, Treatment of ... 307
Nephritis, Interstitial ... 183
Nervous Catarrh, Pathology and Treatment of ... 279
Neuralgia ... 79
" Electricity in ... 218
" Ergot in Periodical ... 211, 300
Neuritis of Infectious Origin ... 50
Neurasthenia ... 199, 230, 263, 293
" Hypodermic Injection in ... 215
Night Air ... 123
Nitrites and Nitrates, Pharmacology of ... 41
" " Therapeutics of ... 81
" Uses and Abuses of. By James Newell, Ph. B., M.D., Watford ... 327
Nitrous Oxide, Asphyxia following ... 83, 253
Nipple, Paget's Disease of ... 77
Nocturnal Enuresis ... 84, 188
Nose, New Method of, Diagnosis of Diseases of Accessory Sinuses of. By Murray McFarlane, M. D., Toronto ... 137

Obesity, Electrical Treatment of ... 351
Obesity ... 374
Obstructive Jaundice, Olive Oil in ... 220
Ophthalmoscope, Use of the ... 186
Opium Commission ... 174
Organic Extracts in Treatment of Disease ... 26
Otitis Media ... 93
Ovum, Transmission of, from Ovary to Tube ... 215, 347
Oxytoxic, Sugar an ... 343

Paraldehyde Habit ... 116, 253
Paralysis, Strychnia Injections in ... 82
" Agitans ... 125
Pathological Bubbles ... 253
Peliosis Rheumatica ... 341
Penis, Gould Method of Ablation of ... 222
Perineal Lithotrity ... 295
Peritonitis, The Forms of ... 377
Permangate of Potash ... 56, 252, 346
Personal ... 319, 352
Phthisis, Curability of Laryngeal ... 24
" Cough Mixture for ... 319
" Early Localization to Apex of ... 49
" Pneumatic Cabinet in ... 343
Pleural Effusion, Salicylates in ... 23
Placenta Prævia ... 119
Pneumonia ... 115
" An Early Sign of ... 159
" of the Aged ... 333
" High Temperature in ... 184
Pneumonectomy, A Case of ... 120
Politzerizing, A New Method of ... 124, 278
Polypharmacy ... 191
Post Mortem Notes ... 146

PAGE

Potassium Chlorate, Poisoning by ... 182
Pott's Disease, Treatment of, By A. B. Judson, M.D., New York ... 36
Pregnancy, Vomiting in ... 53, 312
Pregnant Woman, Longings of ... 285
Premature Labor, Induction of ... 150
Prostatic Troubles, Sanmetto in ... 280
Pseudocyesis ... 234
Puerperal Convulsions, Treatment of ... 277
" Eclampsia ... 110
" Fevers, Contagiousness of ... 117
" " Variation in Virulence and Treatment of ... 207
Pulmonary Cavities, Surgical Treatment of ... 313
Pyoctanin in Malignant Growths ... 312

Rectal Alimentation ... 159, 312
" Catarrh, Phenic Acid in ... 56
Rectum, Varicose Ulceration of ... 76
Red Nose, Treatment of ... 310
Renal Disease, Chloride of Ammonium in ... 247
Reports of Societies—
Ontario Medical Association ... 317, 329, 346, 362
" " Council ... 245
Canadian " Association ... 27, 1 Supp. 320
Michigan State Board of Health ... 367
Rest in Bed ... 55
Rheubarb, Effect of, on the Urine ... 256
Rheumatism, in Childbed ... 54
" Etiology of ... 180
" and Arterio-Sclercsis ... 117
" Local Treatment of ... 32
" Muscular ... 310
" Salophen in ... 157
" Sodium Salicylate in ... 24, 185, 319
Rhinitis, Atrophic, By Price-Brown, M.D., Toronto. 353
Rigid Os ... 45

Salicylic Acid as a Vermifuge ... 125, 216
" " in Ringworm ... 255
Saline Fluid, Intravenous Injection of ... 219
Salt Solution, Subcutaneous Injection of ... 75
Santonine as a Emmenagogue ... 159
Scarletina, Secondary Fever in ... 349
Scarlet Rash after Enemata ... 349
Schoolroom, Some Dangers of the ... 306
Sciatica, Acupuncture in ... 61
Sciatica, Treatment of ... 14 Supp., 149
Scrotum, Eczema of ... 125
Self-Mutilation in China ... 215
Sexual Debility in the Male, Physical Causes of, by F. R. Struges, M.D., New York ... 289
Shock, Injection of Hot Water into Intestine for Relief of ... 183
Shock, Pathology of ... 187
Sigmoid Flexure, Removal of a Portion of ... 44
Skin Diseases, Menthol in ... 312
Sleep, Proper Hours for ... 214
" Sleeplessness, and Hypnotics ... 241, 266
Smallpox, Cocaine in ... 93
Solar Electrotherapy ... 219
Sore Nipples ... 248
Spelling Reform ... Supp., 15
Spinal Paralysis, Syphilitic ... 52
Spine, Examination of ... 29
Sprained Ankle, Treatment of ... 114
Sputum, Examination of ... 344
Stomach, Ulcer of ... 125
" Diet in Ulcer of ... 312
Stomatitis, Peroxide of Hydrogen in ... 247
Strangulated Hernia, Intestinal Perforation in, by W. B. DeGamo, M.D., New York ... 289
Strychnine as an Aid to Labor ... Supp., 16
Sugar, Test for ... 155

| | PAGE |
|---|---|
| Suicide, Ethics of | 51 |
| Sulphonal Habit | Supp., 16 |
| " in the Treatment of the Insane | 280 |
| " Therapeutics | 123 |
| Sumbul, Aperient Pill of | 27 |
| Sunstroke, Treatment of | 88 |
| Surgical Instruments of Antiquity | 309 |
| " Suggestions | 177 |
| Sweating, Mixture for Undue | 160 |
| Sycosis, Pathology and Treatment of | 57 |
| Sycosis, Management of | 377 |
| Symphysiotomy | 25, 286 |
| Symphysis, Spontaneous Rupture of, During Labor | 119 |
| Syphilis and Marriage | 31 |
| " Treatment of | 80 |
| Syphilitic Spinal Disease, Nocturnal Pains in | 94 |
| Tabes Dorsalis, Mercury in | 157 |
| Therapeutic Reflections | 106 |
| The Forms of Peritonitis | 377 |
| Thirst after Abdominal Operations | 152 |
| Things Worth Remembering | 55, 246 |
| Thoracic Disease, Recent Progress in | 275 |
| Thyroid Glands | 125 |
| " Feeding in Skin Diseases | 150 |
| " Influence of, on Nutrition of Skin | 122 |
| Tobacco an Ally of Temperance | 308 |
| Tonsil, Relations of | 24 |
| Tonsilitis, Treatment of | 288 |
| Toothache, Emergency Treatment of | 189 |
| Trachelorraphy, Immediate | 217 |
| Tuberculous Disease, Dissemination of | 235 |
| " Meningitis, Cured by Drainage | 287 |
| Tuberculosis, Guaiacol and Iodoform in | 52 |
| " Parental Transmissability of | 93 |
| " Prophylaxis of, by Peter H. Bryce, M.A., M.D., Toronto | 101 |
| " Operative Treatment of Peritoneal | 113, 307 |
| Typhoid Fever, Diagnosis of | 62 |
| " " Drinking Treatment for | 307 |
| " " Hydrarg. Bichlor. in | 56 |
| " " Treatment of Hæmorrhage in | 118 |
| Umbilical Cord, Knots in, | 92 |
| Urethritis, Posterior | 59 |
| Urinary Deposits, Permanent Mounts of | 351 |
| Urticaria, Soda Salicylate in | 32 |
| " in Children | 125 |
| Uterine Currette | 148 |
| Vaccinal Ophthalmia | 341 |
| Vaccine Virus, Pertinent Facts on | 342 |
| Vaginal Atresia, by E. J. Boyes, M.D., Oakland, Cal. | 69 |
| " Examination, Indications for | 238 |
| Vaginismus Obstructing Labor | 91 |
| " Mixture for | 319 |
| Valvular Disease of Heart, Treatment of | 61 |
| Varicose Ulcers | 84 |
| Vasomotor Ataxia | 112 |
| Vermiform Appendix, Palpation of | 349 |
| Vermifuge, Salicylic Acid as a | 216 |
| Vertical Handwriting | 187 |
| Vertigo, Varieties of | 80 |
| Viburnum Prunifolium, Therapeutics of | 279 |
| Vomiting, Nitro-glycerine for | 191 |
| " of Pregnancy | 312 |
| " " " Golden Seal in | 160 |
| Vulvar Vegetations, Treatment of, by Carbolic Acid | 248 |
| Warts, Formula for Removal of | 116 |
| Whooping Cough | 126 |
| " " Failure and Success in Treatment of, by Bromoform. By J. T. Duncan, M.D., Toronto | 162 |
| Workers and Weariness | 240 |
| Wounds, Danger of Trivial | 155 |
| " of the Cranial Bone | 94 |

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### DEFLECTION OF THE NASAL SEPTUM AND ITS SURGICAL TREATMENT.


BY DR. E. A. SPILSBURY,

Lecturer on Laryngology and Rhinology, Trinity Medical College, Surgeon to the Throat and Nose Department, Toronto General Hospital.


Deflections of the septum, either as a result of traumatism or inflammatory action, are probably the most frequent of the exciting causes of catarrhal inflammation in the nasal mucous membrane. Consequently it becomes a matter of considerable importance that we should thoroughly appreciate, not only their method of development, but also the nature of their action, upon the lining membrane of the nasal cavities, as well as their influence upon its respiratory functions. In health, we find the nasal septum presenting simply as a bony and cartilaginous wall, dividing the nasal passages into two symmetrical cavities. In diseased conditions, we find present in this structure certain abnormalities of contour, which undoubtedly have a marked influence in the production of an ordinary catarrhal inflammation. The earliest investigators attributed deflections to excessive growth of the septum, as a result of which it became too large to fit in its bony framework, thereby becoming warped. This theory may account for a certain amount of cases, but the great proportion of cases requiring surgical interference, that have come under my care, have had a clear traumatic history. Sir Morell Mackenzie in an examination of 2152 skulls, with the bony septum entire, in the museum of the Royal College of Surgeons, found 76 per cent. presenting more or less deviation. 38 per cent. to the left side, 28 per cent. to the right, while in the remainder it was irregular. When it is remembered that a large proportion of cases as seen in practice, present the deflection chiefly confined to the triangular cartilage, we see that the percentage must be even larger than that given by Mackenzie. Delavan has found among European races well marked deflection in 50 per cent. of several thousand crania examined. In cases of deflection the cartilaginous, or bony septum, or both portions, are simply bent to one side, the cartilaginous portion usually being the most involved. The deformity causes enlargement of one nasal chamber, at the expense of the other. In most instances of deflection of the septum there is also thickening, especially at the lower part of the convex surface. The deflections are sometimes double, the convexity of one bend presenting in front on the one side, and the convexity of the other bend presenting further back on the opposite side, thus forming a double deviation resembling in shape the letter S.

In cases of fracture I have found that the cartilage is the part of the septum most frequently broken. Next in order comes the perpendicular plate of the ethmoid, its articulation with the vomer being the usual seat of fracture. The vomer is very rarely influenced by the concussion, its anterior edge being posterior to the bones of the face, and the cartilage yielding to the force of the blow. The causes of this deformity are obscure, and various theories have been advanced to account for its occurrence. In regard to those deflections which are due to fracture of the septum, of course there can be no question, they are due to a direct blow upon the nose. When we undertake, however, to inquire into the causes of the S shaped or unilateral deviations from the middle line, a wide field for discussion is placed before us. Morgagni was the first to advance the view that these deflections are due to excessive development of the vomer. This theory was subsequently advocated by other investigators, and I think it would account for a great proportion of these cases. With every regard for the various theories, I think clinical observation teaches us that traumatism is by far the most frequent direct cause of septal deformities. Where the patient is conscious of obstruction in one side of the nose, the trouble is not infrequently dated from a severe blow or fall on the face. This, coupled with the fact that men are three or four times as frequently affected as women, and that boys are more liable to blows on the nose than girls, indicates very strongly the probability of a

traumatic element oftener than is usually supposed.

I have observed, moreover, that women relate more precisely the history of a bad blow or fall upon the face, as if, the event being comparatively rare among them, they took more notice of it, while with men, a frequent answer to the interrogation is that they had an average amount of knocking about the face at school. In these cases I consider it sufficient to assume a fracture of the septum to account for all the appearances.

When the deflection is great, the most prominent symptom is twisting the nose to one side, usually to the side opposite from that effected. This deformity is sometimes very marked from bending to the side of the anterior edge of the cartilage, even though there is but little deflection farther back. More or less difficulty in nasal respiration is experienced according to the amount of obstruction. Interference with the free passage of air through the obstructed side causes the secretion to collect behind the convex portion and in the naso-pharynx, giving rise to post-nasal catarrh, and I have frequently observed that pressure upon the external wall, especially when associated with exostosis, induces atrophy of the turbinated body of that side, while the inferior turbinated body of the other side is usually found to be hypertrophied, and thus it often happens that patients find respiration easier through the cavity which, upon inspection, seems most obstructed. Of course, as further consequences of the obstruction, the voice acquires a nasal twang, and mouth breathing becomes necessary, with all its attendant evils. There is no disease with which deflection of the septum is liable to be confounded if a careful rhinoscopic examination is made. Most of the evil results of the obstruction can be remedied by a suitable operation, and the external deformity may be largely removed if the nasal bones have not been crushed so as to cause depression of the bridge of the nose.

Now as to the kind of cases requiring surgical interference. It is undoubtedly bad surgery to hold that every deviation from the middle line in the position of the septum demands treatment, and it is probably equally faulty to assume that surgical means should always be adopted, even when one nasal fossa is almost completely occluded. I have found, by experience, that many individuals tolerate partial, and sometimes nearly complete, nasal obstruction on one side without any inconvenience whatever. It is only when actual symptoms are produced in consequence of pressure on contiguous surfaces or interference with nasal respiration that operation is demanded. Whenever, for instance, there is a chronic laryngitis, with enough nasal stenosis to cause even a partial buccal respiration; whenever there is paroxysmal sneezing or hay fever, even although there be but little interference with nasal breathing; whenever there is post-nasal catarrh or eustachian occlusion; whenever there is dry rhinitis of the open fossa, we may operate with perfect propriety and with the best hope of success. The essential feature of deflections of the nasal septum which demands treatment is the stenosis, as from this arises all the sequelæ and complications which accompany them. Where the deformity is the result of a fracture, this may be accomplished, either by removing the projecting portion of the deviation, or by restoring the fragments to their normal plane.

The earliest effort (1750) in this direction is the method of treatment by which the patient is advised to push the septum firmly over to the opposite side several times daily: but unfortunately this simple plan is seldom capable of accomplishing any good. About a century later (1845) Dieffenbach advised that the projections be sliced off with a knife, but this proved rather unsatisfactory. In 1851 Cassaignac recommended a form of treatment especially applicable to deviations, with thickening of the cartilaginous septum. This consisted in dissecting up the mucous membrane and paring off the superfluous tissue. It is not easy of accomplishment, but in certain cases no better operation, perhaps, could be devised. Blandin, of Paris, first advocated punching out a portion of the septum and establishing free connection between the two nares, but this operation rarely affords the desired relief and cannot be recommended.

An easy operation, and one which has given me great satisfaction in several cases of simple cartilaginous deflection, is an incision through the projection following its long axis. Considerable hæmorrhage takes place as soon as the incision is made, but it soon ceases. The end of the finger being introduced into the nostril, the septum is forcibly pushed beyond the centre and maintained

there by packing the previously obstructed nostril with carbolised oakum. The cut edges over-ride each other, and after a couple of weeks are firmly united. The oakum plugs should be changed daily and both cavities sprayed with Dobell's lotion or a solution of permanganate of potash, gr. i ℥ i. Dr. Roberts, of Philadelphia, devised an operation in which a long incision is made obliquely or horizontally, as required, through the septum from back to front along the line of deviation or projection. This is done with a knife introduced into the occluded nostril. If the bony septum is deflected, it it is divided by a chisel in the same direction. A long steel pin is then introduced into the normal nostril, and its point passed, with about two-thirds of its length, through the septal cartilage, a short distance above and in front of the incision. This brings the pin into the occluded nostril. Pressing the end of the nose and septum, according to the character of the case, into its proper position, the "head-end" of the pin is brought close to the anterior part of the septum, thus causing the "point-end" or portion in the occluded nostril, to lie across the incision and adapt itself lengthwise along the surface of the septum beyond the incision. The pin is then pushed in up to the head, and its point is thus deeply imbedded in the soft tissues of the septum, and upper and posterior part of the occluded nostril. It doesn't make much difference where the point is fastened so that it is firmly fixed and holds the incised septum straight. Sometimes two pins will be required to correct deformity. In such cases the second one is inserted, not from the mucous surface within the nostril, but from the cutaneous surface of the dorsum of the nose just below the nasal bone. The operation is of course, a bloody one, because of vascularity of the parts, and because it will be useless unless the incisions are very free, so as to take away all resiliency of the cartilage. The pins are left in position two weeks. I have operated in several cases, by this method with favorable results. The patient is subject to but little inconvenience, and the cavities can resume their functions at once, with no disfiguring apparatus apparent. A small square of court plaster will cover the end of the external pin, which should have a flat head. The other does not show, as its head lies within the nostril.

Another method of rectifying deflection of the septum is to forcibly return it to its normal position by means of heavy forceps, as devised by Adams, of London; but never having looked upon this instrument with favor, I have not given Adams' operation a trial. In those forms of comparatively slight deflection with considerable thickening of the prominence causing partial stenosis, the simplest method I have found, in dealing with such cases, is that devised by Bosworth, of New York. It consists in cutting off with a saw, specially constructed for the purpose, the protruding portion, together with its covering mucous membrane. The saws are two in number—one cutting downwards and the other upwards. The steel portion is about five inches long, the anterior half serrated and probe-pointed, while the other carries a large wooden handle at the proper nasal angle. By this means the hand is kept away from the field of vision during the operation. The mucous membrane having been well cocainized with a 20 per cent. solution soaked in a tampon of absorbent cotton, the saw is introduced either above or below the protrusion as may appear more convenient, and rapidly cut through, care being taken to make a straight cut without bending the instrument. The bleeding is sometimes very profuse, though it generally ceases as soon as the operation is completed. It is of great importance in removing these projections, that a thoroughly smooth surface should be left, for when a jagged uneven surface remains, the result is unsatisfactory, and the period of healing occupies an unnecessarily long time. Recently, I have adopted a new operation for the worst cases of deflected septum, whether cartilaginous only, or bony and cartilaginous combined, and with very favorable results. The operation is that of Delstanche, of Paris, and the set of instruments consists of strong, crushing and cutting stellate septum forceps, septum clamps, and handle or tightener. The clamps are three in number, each consisting of two blades lined with rubber, and sliding on a square bar. The handle is also used to separate the blades of the clamp when removal is required.

The patient being under the influence of chloroform the stellate blade is passed into the open nostril to the required position, and the flat blade passed into the obstructed nostril to a point opposite; the blades are then locked as with obstetric forceps and pressure exerted, thus crushing and

cutting the septum. This is repeated in two, three or more places, until all resiliency of the septum has been overcome, when the index finger can be easily passed up the occluded side, and the clamp then adjusted in position. In tightening the clamps, care should be taken not to exert too much pressure as it would interfere with the nutrition of the seat of operation and would probably give rise to sloughing. Frequent cleansing should be carried out, by means of a spray of Dobell's solution or other antiseptic wash. The clamp should remain in position for three or four days, after which I use plugs of carbolized oakum, as they are more cleanly than hard plugs of ivory or wood, and exert sufficient pressure to hold the part in the required position. They should be changed at least once daily. In some cases it will be sufficient to plug only the formerly obstructed side with the oakum, after removal of the clamp. The evening temperature may rise above 101° on the second and third days after operation, but soon subsides. The three following severe cases of deflected septum, all in male patients, and of traumatic origin, which I have recently operated upon by Delstanche's method, with the most favorable results, both as regards the nasal stenosis and the facial deformity, have satisfied me as to the efficiency and value of this operation.

CASE I.—A. W., æt. 21, consulted me, October 26th, 1892, for complete obstruction of the right nostril and catarrh, and expressed himself as desirous of undergoing any operation that would give him relief from the distress he experienced at not being able to breathe throught the right side of his nose. At about five or six years of age a severe fall upon the face had broken the nose, nothing having been done at the time to set it, so from that time he could not breath through the right nostril properly, and this difficulty increased in after years, until almost complete obstruction existed. Upon examination I found the right nasal chamber almost entirely occluded by deflection of the septum, in both its cartilaginous and bony portions, and of undoubted traumatic origin. The left inferior turbinated body was greatly enlarged by puffy hypertrophy, yielding easily to pressure of the probe, and it almost filled the large concavity caused by the deformity of the deflected septum. In this case, as there was so much inflammatory thickening of the projecting portion into the right nostril, I removed a piece about an eighth of an inch in thickness with the saw, in order to obtain space for the introduction of the flat blade of the forceps, as well as with the view of obtaining a better result after crushing. The blades of the forceps being placed in position in their respective nostrils, the anterior portion of the deflection was crushed and cut; this was repeated in two or three places back to the posterior part of the deviation, after which all resiliency was overcome, and the finger could be passed into the occluded nostril. The clamp was then placed in position, and firm but not tight pressure exerted. The temperature rose to 101-2° on the evening of the second day after operation, but soon fell to normal. On the morning of the fourth day I removed the clamp, and plugged both nares with carbolished oakum which was renewed daily. After two weeks' treatment the plugs were abandoned, firm union having taking place, and the patient could breathe freely through both nostrils. The facial deformity was also markedly reduced, the nose now being fairly straight. This patient returned by appointment in about a month from date of discharge when the relief of the stenosis was found to be permanent, and the catarrhal condition had nearly subsided. At this time the left inferior turbinated body was cauterized two or three times by galvano-cautery, and the patient has since remained free from any obstruction or inconvenience from catarrh.

CASE II.—F. M., æt. 30, consulted me, February 3rd, 1893, for almost complete obstruction of the left nostril, very marked facial deformity and catarrh. About seven years previously he had received a severe blow on the right side of the nose. Upon examination I found the left nasal chamber almost entirely occluded, and post-nasal catarrh existing. The deviation was both cartilaginous and bony, and of unmistakable traumatic origin. I operated by Delstanche's method with the result that in two weeks the patient was breathing as freely through the left nostril as the right, and upon inspection there was almost as much space. In this case also the deformity of the nose externally was decidedly improved, and now, in appearance, is comparatively straight.

CASE III.—G. H., æt. 17, consulted me, April 6th, 1893, for obstruction of the left nostril, which was causing him great discomfort. About five

months previously, he had received a heavy blow on the right side of the nose. Upon examination I found marked deflection of the cartilaginous portion of the septum to the left, causing partial stenosis, and there was also post-nasal catarrh. The facial disfigurement consisted of rather an abrupt turning of the tip of the nose to the right. I did Delstanche's operation in this case with the most satisfactory results in regard to both the nasal stenosis and the external deformity.

## THE USE OF IODINE, CARBOLIC ACID AND CHLORAL IN DERMATOLOGY.

BY DR. C. W. CUTLER, NEW YORK.

Mr. Geo. L. F., aged 27, called at my office on July 20th, 1890, with the following history: About six months ago he noticed a little itching about the pubis. Having been once affected with crab-lice, he attributed this itching to a similar attack, and applied remedies which he had found previously beneficial. Instead of an improvement, however, the itching became worse, and the area of redness, which he attributed to the scratching, became increased in size. He then consulted a physician, who told him his trouble was eczema, and began a course of treatment for its cure. As the disease, instead of showing an improvement, continued steadily to increase, he consulted a specialist in skin diseases, who confirmed the diagnosis of eczema, and advised a different plan of treatment; but even this change of treatment resulted in no improvement, and the disease, which at first was limited to the pubic region, began to extend down the inner sides of the thighs, spreading from the centre toward the periphery by a well-marked, raised, circular margin; while new areas of the disease also developed on the inner sides of the thighs.

After being under treatment for several months and deriving no benefit, he consulted another specialist, who told him that the disease was often called eczema, but was really a form of ringworm which was very difficult to manage, always taking a long time to effect a cure.

Another method of treatment was inaugurated, and continued for two months without benefit, the disease still showing a tendency to spread, and without any signs of improvement. By the advice of his physician, he decided to try the benefit of a different climate, as the disease was beginning to affect his general health, so he came to New York and placed himself under my care. On examination, I found the skin of the pubis, lower portion of the abdomen, penis and inner sides of the thighs extending backward about the anus and buttocks, reddened and thickened, presenting a well-defined, marginate, raised border separating it from the normal integument. Around the borders of this patch were a few discrete, pin-head sized papules and papulo-pustules, some of which were perforated by a hair. The inflamed area of the skin was of a dark red color, boggy to the feel, scaly, and covered in places with yellowish crusts which could be quite easily removed, leaving a denuded surface that exuded a little serum, giving the general appearance of an eczema. The history of the disease, its method of extension, the well-defined, raised, marginate borders, and its rebelliousness to treatment, left no doubt in my mind that I had to deal with a well-marked case of eczema marginatum of Hebra, or tinea trichophytosis cruris, as we consider it to-day. The patient had worried very much about the disease, but otherwise than being slightly anæmic, I could not discover that his general health had in any way suffered. The itching, however, annoyed him terribly, kept him awake at night and made him very nervous and irritable. Recognizing that all the usual plans of treatment had been tried thoroughly, I decided to begin at once a somewhat different method of treatment than had been previously adopted in this case. The patient was ready to submit to any plan of treatment I could hold out to him with encouragement, no matter how painful or how closely it might confine him to the house. He was even willing to go to bed and remain there, if necessary, so that I met with no opposition or neglect to carry out my instructions to the letter, and to these facts was largely due the good result of the plan of treatment which I will now describe:

The affected region was first thoroughly shaven, and as the process was a painful one, owing to the severity of the inflammation, a lather was made with a 4 per cent. solution of cocaine, after which the process was accompanied with very little difficulty. The raised marginate edges and the papules and papulo-pustules surrounding were

then painted over with a solution of equal parts of tincture of iodine, chloral and pure carbolic acid. The pain resulting from this application was very severe, but was soon controlled by an ointment composed of twenty grains of cocaine and an ounce of the ointment of roses, which the patient was allowed to keep on until all pain subsided. An ointment consisting of one part of the ointment of carbolic acid, two parts of the ointment of liquid tar, and five parts of diachylon ointment was then ordered to be kept continually applied to the whole inflamed area, and changed night and morning. On the third day the diseased area was thoroughly cleansed with soap and hot water, to which was added some bicarbonate of soda. The result of treatment so far was very satisfactory. The disease had not spread at all, the borders were less elevated and less distinct, and the itching less pronounced. The same treatment was again resorted to, only this time the whole surface of the lesion was lightly gone over with this solution of chloral, iodine and carbolic acid, then the cocaine ointment, and afterward the ointment of carbolic acid, tar and diachylon was applied as before. At the end of the next three days the disease had very decidedly improved in appearance. The induration was very much lessened, and here and there the redness had nearly disappeared. The raised, marginate border had flattened down greatly, the skin was less boggy, the scales had entirely disappeared, and the itching was not complained of at all. At the end of ten days' treatment, the solution of carbolic acid, iodine and chloral being applied every third day, islands of normal skin made their appearance here and there throughout the affected area. The margin, which was no longer raised, was intercepted here and there by normal integument.

The strong application, used every third or fourth day, was now only made to the diseased area, and then but very lightly, but the tar ointment was still continued.

At the end of three weeks the patient returned to his home cured, a slight pigmentation being all that remained of his disease. As a precaution to prevent any further return of this disease, I gave him a wash of two grains of bichloride of mercury to the ounce of rose-water, which was to be applied to the affected area once or twice a day for a month.

It is now two years since this patient passed from under my care, but it was only a few weeks ago that I heard from him, stating that there had been no return of the trouble. Here, then, was a case of parasitic skin disease which had lasted for over six months, treated the greater part of the time in the most approved manner without benefit, yet yielding in three weeks to a plan of treatment which has since then proven very satisfactory in my hands, used either in the method just described or modified to suit the case.

The use of iodine, carbolic acid and chloral in dermatology is, I know, nothing new, for either alone or in combination with other agents they have been recommended in many diseases of the skin, and are used with benefit. Thus iodine was strongly recommended by Hebra in lupus, lentigo and chloasma, and in small-pox to prevent pitting, while as a remedy for erysipelas and ringworm it has been used for many years.

Perhaps there is no other drug which enters more frequently into prescriptions for diseases of the skin than carbolic acid, although after closely studying the literature on the subject I find it very infrequently used in its pure state, unless to ulcerated surfaces, lupus and condylomata; but in combination with other substances, thus reducing its strength, it is very frequently used in the parasitic skin affections, chronic eczema, pruritus, and, in fact, nearly all the diseases of the skin in which itching is a marked characteristic, for the purpose of relieving this troublesome symptom.

Chloral, although used much less frequently than either carbolic acid or iodine, finds its way very frequently into prescriptions, it having, like carbolic acid, marked antiseptic and antipruritic properties.

If we study the physiological effects of these agents on the skin we find that iodine is a rubefacient, staining the skin yellow, and coagulating the albuminous agents, thus being an antiseptic and showing a decided tendency to hasten the absorption of all inflammatory products.

Carbolic acid is a superficial escharotic, turning the skin a white color. It first produces a burning pain, which is quickly followed by marked anæsthesia of the part to which it is applied. It forms a chemical combination with fat and coagulates albumen, thus being a very strong antiseptic, rapidly destroying micro-organisms. It also

possesses, to a marked degree, the property of hastening the absorption of inflammatory products.

Chloral is also a rubefacient, producing some redness and heat in the skin, followed by marked anæsthesia, especially to subjective sensations. Its antiseptic properties are also well marked. When we combine these agents in equal parts we obtain a solution which is not a mere mixture but a complex chemical compound which acts as a rubefacient, staining the skin a light yellow. A slight, stinging pain is first produced, which is soon followed by a decided numbness of the skin over which the solution is painted. This solution possesses strong antiseptic, antiparasitic, antipruritic, antiphlogistic, analgesic, anæsthesic and absorption properties. It penetrates deeply into the tissues of the skin, not only hastening the absorption of inflammatory products, but being itself readily absorbed. Although it possesses these important therapeutical and physiological properties, it is not altogether free from evil effects which may result from its use. In a few cases, especially in children and blondes, the amount of pain and inflammation following its use is so extensive as to forbid its employment except much diluted, or over very limited areas. If applied to the face, scalp or hands it produces some staining, which, although lasting but a few days, is an objection to its use in some cases. There is always danger of the absorption of carbolic acid when this solution is painted over a large area, resulting in constitutional poisoning. This objection to its use should never be lost sight of when this agent is employed.

I was first tempted to use this combination of chloral, iodine and carbolic acid in certain cases of skin diseases, having employed it in my hospital days as an application to the cervix uteri, and noticing what a decided effect it had in lessening the congestion and thickening of the tissues. The little papillary growths so often found on the cervix were frequently destroyed, after a few applications of this mixture, without any inflammatory reaction. As the solution was also a powerful germicide, besides having such decided action on congested, indurated tissue, it seemed to me just the application to make in all parasitic affections of the skin accompanied by induration and thickening. Acting on these indications, I began its use in my dermatological practice with the case just recorded, and have continued its use with the best results in certain classes of cases ever since. Especially has the result of treatment been most satisfactory in *ringworm* of the scalp. Cases which had resisted other forms of treatment for months began to improve at once, and were practically cured in three or four weeks.

The plan of treatment employed in these cases consisted in extracting the hairs from the diseased area, which was done with ease and without much pain after thoroughly rubbing into the scalp a four per cent. cocaine ointment, then cleansing thoroughly with soap and hot water, after which an application of this solution was painted over the patch extending a little beyond its border. If the area is a large one, and especially if the child is young, I advise that no larger area than an inch square be treated at one time. It is not unusual to find that this application is followed by quite a severe dermatitis of the scalp. To relieve this inflammation a Lassar paste is ordered continually applied. Usually in three or four days the inflammatory action has so far subsided that another application can be made. In a large number of cases treated I have found but very few that required more than three or four such applications.

This plan of treatment not only acts well in the non-inflammatory forms of ringworm of the scalp, but especially so in the tinea kerion, the inflammatory condition present being no counter-indication for its use. In ringworm of the body and in *tinea versicolor* one or two applications of this solution will usually effect a cure. In the treatment of *tinea barbæ* I have perhaps met with the best success in the employment of this agent. The plan of treatment usually employed was as follows: If the disease had lasted but a short time its progress was usually checked by painting over the diseased surface every two or three days a solution of this iodine, chloral and carbolic acid, and in the meanwhile keeping some soothing application continually applied to relieve the subsequent inflammation. In chronic cases, and when the disease was extensive, it seemed much better to make this application over small areas at a time, thus taking perhaps a week to go over the whole surface, in the meantime keeping the beard cut very close and carefully extracting all hairs

having suppuration about their follicles. Before any application is made all crusts are removed by soap and hot water, or by poulticing. Every night and morning the patient should bathe the face for half an hour in very hot water, after which all the loose hairs and those with pus about their roots should be removed. A lotion of resorcin, fifteen grains, and bichloride of mercury two grains, to the ounce of rose-water, should then be applied, after which a small area should be painted over with this solution of carbolic acid, iodine and chloral. At night ammoniated mercury ointment containing fifteen grains of resorcin to the ounce may be kept continually applied.

It is my experience that this strong solution very much hastens recovery, for in cases where it was used on one side of the face only, the other treatment being the same over the whole affected area, recovery was much more rapid on the side to which this agent was applied. After each application the induration becomes less extensive and the disease shows no tendency to spread.

Noticing the marked tendency which this agent seemed to have in preventing the spread of skin diseases and lessening the inflammatory induration, I was tempted to use it in other diseases of the skin than those of a known parasitic nature.

In the superficial *paronychia* known as "run-around," I found that the disease could be entirely cured by one or two applications. The raised epidermis was first carefully dissected away, and the lesion then lightly painted over with this solution, being particular to get the edges thoroughly impregnated with it. The success derived in checking the suppuration in this variety of paronychia led me to use it in certain forms of skin diseases attended with the production of pus. Good results were obtained in *impetigo contagiosa*, not only in healing the lesions, but in preventing the spread of the disease by carefully removing the crusts, touching lightly the base of each lesion with this solution, and then dusting with aristol or applying a weak solution of ichthyol.

A few impetiginous and ecthymatous lesions were treated in like manner, and almost always with benefit. The good results in these cases, characterized by the formation of pus, was largely due to the antiseptic property of this solution. In a series of cases of *psoriasis* I have used it with considerable success. Especially has it been serviceable in cases where the patches have been large and covering a considerable extent of surface. I first tried painting this solution around the edges of the patch, and was gratified to find the area smaller after each application. Afterward I applied it to the whole patch, unless it covered too large an extent of surface, and have usually found the result more satisfactory than that obtained by any other plan of treatment which I have ever employed. Cases which have resisted other methods of treatment have yielded kindly to this. The method usually employed consisted in first removing the scales by applications of salicylated oil, after which the patch is thoroughly painted over with the solution. The pain, if at all severe, can be controlled by an ointment of cocaine, after which an ointment of one part of the ointment of carbolic acid, two parts of the ointment of tar and five parts of diachylon ointment is to be applied continually for three or four days; then, after carefully cleansing with soap and hot water, another application of the carbolic acid solution is to be made.

A marked improvement is usually noticed after the first treatment. The induration is less marked, the patch less elevated and the borders less distinct. After the second application the improvement still continues, and there will be found little islands of skin where the disease has nearly disappeared. This improvement continues until after a few applications the skin returns to its normal condition, a little redness and pigmentation being all that remains. There is also no tendency for any return of the disease in the same areas. Occasionally some dermatitis is set up, which, however, may be easily controlled by the application for a few days of Lassar's paste. In old, chronic cases of psoriasis, where the patches have lasted for years, the treatment of one patch by this method and other patches on the same body with chrysarobin or preparations of tar will show at once the advantage derived by the plan of treatment which I have just described. Especially well and satisfactory does this plan of treatment act in psoriasis of the scalp. *Squamous forms of eczema* occurring on limited portions of the body may be treated in a similar manner with splendid results. Cases having lasted for years I have seen cured in a few weeks, and without tendency to return. In all chronic cases of eczema where there is thickening

and induration of the skin, with persistent desquamation and annoying pruritus, cases in which emollient applications are utterly inefficacious, this solution will change the character of the eczema from a chronic to an acute form, a condition not only showing a natural tendency to recovery, but one which responds readily to treatment. The lesions of *papalo-squamous syphilis* may also be made to disappear very rapidly by the employment of this agent.

Two cases of *lupus erythematosus* of recent origin have been thoroughly cured by a number of applications of this agent, and now, after several months, show no signs of return. Other cases of lupus erythematosus in which I have used it show marked signs of improvement—much better in result than from the use of pure carbolic acid alone. The cases showing the most marked improvement are those in which applications of tar and diachylon ointment followed the use of this solution.

In several cases of *lichen planus*, where the disease has not been extensive, I have used this solution with good results. Not only does it allay the itching, but checks the spread of the disease and hastens resolution. My best results in this disease have been in cases where the application of this solution was followed by the ointment of tar, carbolic acid and diachylon.

In *molluscum contagiosum* I found no trouble in curing the disease in one or two treatments by puncturing each lesion with a platinum wire dipped in this solution. Pure carbolic acid or stick of nitrate of silver, and perhaps several other substances, may do the same, but the process is more painful and followed by more reaction, and the lesions heal less rapidly. After each lesion is punctured, I usually cover it with mercurial plaster, allowing it to remain on several days.

I know of no application which will prove as beneficial in hastening the return of the hair in patches of *alopecia areata* than this solution. The best results, in the few cases in which I have tried it, were obtained by making the application once in five to seven days. In five cases, four showed the beneficial effects of treatment in from four to six weeks. In these cases no other external treatment was employed. In one case there has been absolutely no result obtained from either this or any other plan of treatment. In another one of this series of cases not only did the hair return after treatment, but the neuralgic pains which were very severe at the site of the alopecia were very much relieved, after each application, for two or three days.

Noticing the power of absorption this solution seemed to possess, I was tempted to use it in a few cases of *chloasma*. The first case in which I tried it occurred in a young lady of society, living some distance from New York. There were three patches of chloasma on her face, which had existed for several months, and were so disfiguring that she worried over it very much. She had been treated without success in a number of different ways, and was willing to be experimented upon provided that any hope of success could be assured her. Three applications of this solution were made in my office a few days apart. Some slight inflammatory action was set up, which was relieved by applications of cold cream. After the third application the skin was stained a dark brown color, which, together with the inflammatory action, made the lesions look very much worse than they did before treatment was begun. I had prepared the patient, however, for this condition, so there were no protestations on her part. The patient was then told to return in a month, so that I could see the result. At the end of that time we were both much gratified to find a very marked improvement. There still remained some slight pigmentation, which seemed to me, however, to result more from the application than the original form of the disease. She was told that the staining would gradually grow less marked in time, and to report again for observation in a few months. She did so after six months, without showing any traces of her former disease. In other cases the result of treatment has not always been so satisfactory, but I am positive that the results obtained have been better than from the use of any other application to these lesions. Of course, as the disease is most frequently the result of some functional or organic derangement of an internal organ, new patches of the disease may make their appearance while the old ones are disappearing under treatment. If no result is obtained after three to five applications, it is not advisable to continue with this plan of treatment, as pigmentation of the skin may result from the frequent application of this irritant.

This fact led me to use it in certain cases of *leucoderma* with good results. To be of use, however, the solution must be applied every few days and continued for some time. A pigmentation may take place in the skin after a time which is often permanent, thus effecting a cure.

Since *erysipelas* has been known to be a germ disease, and since this germ—erysipelas coccus—has been found in large numbers about the edges of the affected area, dermatologists have been looking for some germicide which will destroy the micro-organism and prevent the spread of the disease without injury to the tissues. This agent, it has seemed to me, would fulfil these indications, so I have used it in a number of cases with benefit. My experience in treating this disease is so limited that I cannot speak with certainty as to its value as compared with other agents, especially ichthyol, but I can say that it has a tendency to prevent the spread of the disease. In the few cases in which I have used it the applications were made daily to the margin of the disease and about an inch beyond it, while a lead and opium wash was applied continually to the inflamed area. All of these cases but one did remarkably well, and I could not wish for better results. The one case which terminated fatally was in an old lady where the disease began on the nose and spread rapidly to the scalp and neck, resisting all efforts to check it.

"The Sensation of Itching," one of the best papers ever read before this Society, by Dr. Bronson, did more to place us on the right track to intelligently treat this symptom, when not the result of a skin lesion, than has ever been done before. In this paper Dr. Bronson states that scratching relieves the itching either by substituting for the pruritus painful or voluptuous sensations, or the active irritation of the skin by this form of counter-irritation, produces better conductivity in the nerves and thus removes one of the principal causes of this unpleasant sensation.

Now, if we can substitute for this scratching some application to the skin, which will produce the same result, only more lasting, we will certainly receive the blessings of our patients even though we may not cure them. Such an agent we have in this solution of carbolic acid, iodine and chloral. When the pruritus is limited to small areas it may be applied with perfect safety although there is some counter-indication for its use. Used about the anus and scrotum I have seen some dermatitis set up lasting for a few days, which although quite painful has always resulted in a marked amelioration of the itching, which not only lasted while the inflammation was present, but for some days and weeks afterward. Many other varieties of skin diseases have been treated by this solution, with various degrees of success, and although I do not want to convey the impression that we have in this remedy a panacea for all diseases to which the skin is heir, I do hope to emphasize that it is a valuable addition to the list of agents we now possess in treating skin affections.

There are some counter-indications for its use, some cases of skin diseases which would be made worse by the employment of any cauterizing agent no matter, if only superficial in its action. In most of the acute inflammatory conditions of the skin I should not recommend its use, especially when the skin is denuded of its epithelium, as in cases of acute eczema or acute dermatitis, nor can I recommend its use in the so-called glandular affections of the skin, or in any of the skin diseases covering a large extent of surface.

Remember that we not only have here a powerful agent, one that is capable of setting up severe inflammation of the skin which may be likened to that of a burn, but one that can be absorbed into the circulation, set up constitutional poisoning, and perhaps cause death. Therefore, care should be taken as to the extent of surface to which this application is made, also as to the age of the patient, remembering that the skin of young children is very easily affected by counter-irritation. Never allow your patients to apply this remedy themselves, but take the whole responsibility yourself, thereby insuring that it is done properly and at a right time. The success which I have derived from its use I believe to be entirely due to the personal attention I have given the patients under my care.

There is, perhaps, no branch of medicine which has made greater advancement in pathology and diagnosis than dermatology; but, alas, in what chaos do we find the treatment of many skin affections, especially chronic skin diseases which show no natural tendency toward recovery. When I see how few dermatologists agree upon any plan of treatment, how many patients go from one specialist to another, seeking relief without finding

it, I become more and more impressed with the remark which I heard a distinguished dermatologist make to his class when speaking of the treatment of skin diseases. He said :

"Gentlemen, the basis of all treatment for skin diseases is grease. It does not seem to make much difference, in a large number of cases, what kind of grease it is, but be sure, gentlemen, it is grease." That is just the trouble. We are too apt to use grease, too apt to use bland and soothing applications in skin diseases which demand strong counter-irritation. Never mind if an acute inflammation of the skin is set up ; it is easy to control, and by its action on the diseased tissue will frequently, as you can all testify in some forms of chronic eczema, prove most beneficial.

Fox and Taylor strongly advised the use of irritant application, in eczema squamosum to stimulate the skin and set up an acute or sub-acute process, which will take the place of the chronic inflammation and yield kindly to subsequent treatment.

Although I am thoroughly convined that this solution possesses, outside of its counter-irritant action, well-marked curative properties in many of the skin diseases, I have no doubt that a portion of the good results obtained was the direct result of substituting for the disease, to which the solution was applied, an acute inflammation of the skin, a condition not only responding readily to treatment, but one showing a natural tendency toward recovery.

After two years' experience in the use of this therapeutical agent, I believe the following conclusions can be safely drawn :

I. That we have in this combination of chloral, carbolic acid and tincture of iodine, in equal portions, a topical remedy of decided value for the treatment of certain affections of the skin.

II. That the combination of these agents produces better results, has a wider range of usefulness and possesses superior therapeutical advantages than are found in either of the remedies when employed alone.

III. That the physiological properties of this solution, upon which the therapeutical advantages of the remedy depend, are those of an antiseptic, antipruritic, antiparasitic, antiphlogistic, analgesic, anæsthetic, absorbent and counter-irritant nature.

IV. That the solution is a powerful agent, and should not be used indiscriminately or carelessly, as there is danger of producing severe dermatitis and constitutional poisoning.

V. That its chief therapeutical advantages are due to its penetrating action into the tissues of the skin, its rapid destruction of all forms of micro-organisms, and its wonderful power in hastening the absorption of inflammatory products.

VI. That it is, therefore, especially serviceable in parasitic skin affections and in all forms of chronic skin diseases characterized by thickening and induration of the skin, accompanied by scaling and itching.

VII. That it changes the form of some skin diseases, substituting for the original disease an acute dermatitis, which responds readily to treatment.

## Selected Articles.

### A BRIEF REVIEW OF SOME OF THE RECENT PRACTICAL ADVANCES IN MEDICINE AND THERAPEUTICS.

The function of the member of this Association who is called upon to deliver the annual address in medicine is not to give in detail the course and results of laborious laboratory investigation nor to weary his hearers with long reports of cases. It is rather his duty to present as far as lies in his power certain broad views of the present status of the non-surgical side of our work as doctors of medicine.

The consideration of one particular field of work is also out of place and I have therefore decided that a brief and necessarily imperfect discussion of the present status of therapeutics and diagnosis would enable me to fulfil, to some extent at least, the duty which has devolved upon me. The department of surgical therapeutics and diagnosis does not fall to my care and will be ably discussed by Dr. Mudd to-morrow.

By therapeutics I do not mean to indicate a subject already well worn, though new, namely, an enumeration of the new remedies which the manufacturing chemists are foisting upon us with an ardor beyond description and with a success, so far as numbers are concerned, which is appalling to many conservative members of our profession. These drugs have their proper place and form only part of the great line of advance which while it is broken now and again by the development of a weak spot is nevertheless moving forward, bringing with it much cause for congratulation and many promises for even more

beneficent results in the future. To regard our therapeutics of to-day as improved only because of the invention of such compounds is to ignore the whole cause for encouragement, namely the increasing tendency to place all our remedial measures on a rational basis.

Very closely associated with this improvement in therapeutics is the increased accuracy of diagnosis which modern research has placed in our hands, for the correct diagnosis of a case must always be an important preliminary to proper therapy. Not the least of these diagnostic gains is the ability which we possess to recognize the presence of tuberculosis when the signs of the disease are so indefinite that positive information of the condition of the patient can not be gained. Again in many instances where unusual and aberrant symptoms are present, microscopical examination of the blood may show the presence of various micro-organisms. Nor should we forget the valuable aid rendered us by the advances in the diagnosis of gastric affections by the use of the stomach tube and the microscopical and chemical examination of the gastric contents, more especially in regard to the absence of hydrochloric acid in cancer and its excess in cases of gastric ulcer. Finally, an important aid to diagnosis in gastric disorders was the introduction of salol by Ewald to determine the motility of the stomach and the question of dilatation or atrophy.

The day is past when there is any excuse for the physician dodging a diagnosis and treating a patient on the indefinite basis of "general principles," and the public have learned that the shotgun prescription of years ago is only a cover for the ignorance of the medical attendant who expects the various drugs to influence an area, the diseased state of which he is himself unable to discover.

The prescription of to-day is to be written only after careful examination and study of a case, and its constituents must be directed towards the condition they are to modify. It is necessary therefore that diagnosis should be well enough advanced to enable us to discover the exact stage of a malady and the precise condition of the patient's system in addition to the knowledge that a given disease is in existence in his body.

Fortunately the improvements in diagnosis and treatment have kept pace with one another although other branches of medical science have fallen to the rear. The advances have been rapidly yet gradually accomplished, not by startling leaps but by small and lasting accretions which have formed on the sides of our older views, either modifying their appearance or completely changing their aspect.

These gains have not been heralded to the profession and the world at large as have many of the newer surgical procedures which are often so brilliant at their inception that they dazzle the professional eye to such an extent as to blind it to the subsequent shrinkage which takes place in their practical importance. Sudden rushes are attractive and for this reason even the laity often chide the physician for failing to advance as rapidly as the surgeon. The very character of a surgical operation is destined to attract attention from the more humdrum, but none the less important, medical methods, yet it is the latter which require in many instances a greater amount of attention to the minute points of differential diagnosis. As I have pointed out elsewhere the relation of the knife to a diseased tissue must always be identical, while the relation of a drug to a disease process must constantly vary with the perverted function of the special protoplasm involved. The one carves the wood the other grafts upon its living cells impulses which alter its activity. In the one case the questions of shock and repair are the points to be considered; in the other, the ever changing vital processes still more varied by perverted function must be balanced and their importance weighed. For these reasons it is impossible for the physician to advance his methods by strides or bounds, and he can only remember the story of the hare and tortoise when accused of being dilatory.

Leaving these general views of the question of medical, in distinction from surgical advancement, let us if possible discover in what directions we have really made distinct advances. There are those who have seen method after method of diagnosis and treatment rise and fall, and who have in consequence become pessimistic as to the value of new ideas, partly perhaps because they have not employed them properly. There are others who are equally optimistic and excessive in the laudation of new or old methods of diagnosis or remedial measures. A careful survey of the field certainly shows that a gain commensurate with the amount of labor expended has been made, and the only loss or standstill that can be found is the tendency of the profession in general to rush after new things to the neglect of the old, which in many cases deserve more attention than is given them.

A very important part of this advance has been recognition of the fact that many conditions heretofore regarded as distinct individual maladies and treated accordingly, are in reality merely manifestations of functional disorder elsewhere. No more interesting example of this can be adduced than anæmia. But a few years ago we were taught that anæmia was a state in which the blood was impoverished, and these conditions of anæmia might be divided into those which were simple and essential—or in other words those which would respond to treatment and those that would not. We had this empirical information,

and we also know by experience that while iron was useful in one form of simple anæmia independent of malignant disease, arsenic was more valuable in another. Later than this we came to regard anæmia chiefly as a manifestation of disease in certain blood making organs or an important symptom of many perverted functions, and finally the invention and employment of the hematocytometer and the hemoglobinometer has enabled us to separate anæmia into a condition in which there is a decrease in the number of corpuscles or a decrease in the amount of hemoglobin in each corpuscle. In other words, we now know that pallor may be due to too few corpuscles or too little hemoglobin, and this being known it is only a step to the understanding of the empiricism of years ago in regard to the use of iron and arsenic, namely: that in that form of anæmia due to a diminution in the number of blood cells arsenic did good because by its alterative powers it increased cell activity in blood cell-making organs, while where hemoglobin was lacking, iron came particularly into play. For these reasons we find that small doses of alteratives, such as corrosive sublimate and other mercurials, often overcome the anæmia due to deficient manufacture of cells, and we may explain why it is that arsenic usually fails to do good in chlorosis, an anæmia of deficient hemoglobin, and succeeds in pernicious anæmia, which is characterized by a deficient number of corpuscles but relatively increased hemoglobin.

It is unfortunately only too true that the entire subject of blood making and blood breaking is as yet very imperfectly understood, but our therapeutic facts rest on rational grounds now, if not before, and if the pathologist will give us more information upon these subjects, other remedial measures will be introduced or the empirical employment of others still further explained. Practically speaking, the therapeutist recognizes two very important points, the causes of which the pathologist must eventually solve, namely, that one class of anæmias is due to defective or deficient hemogenesis and another to excessive hemolysis. The former are generally believed to form the simple class and the latter the essential or pernicious class. It is in the deficient hemogenesis class that we fail. More than this, the causes of excessive hemolysis are so various that we can further divide them into movable and permanent; the movable being represented by the cases in which copræmia or auto-intoxication takes place, and the others by the true pernicious anæmia, about which we really know very little, save that most observers find evidence of profound hemolysis in the percentage of iron in the liver; while in the dark colored urine they believe a destructive agent exists which prior to its excretion has slaughtered many corpuscles. Unfortunately it is at present impossible for us to separate clinically the hemogenous anæmia from that of hemolytic excess unless we find evidence of great corpuscular disintergration in a copious elimination of hemoglobin in the urine, or a jaundice evidently hematogenous in character, or a large number of defective corpuscles which would perhaps indicate defective hemogenesis rather than that they were scarred veterans of a battle with a poison in the liver cells or elsewhere. Post-mortem signs often aid us in the differential diagnosis, but this is too late to do any good to the doctor or patient.

There is one point, however, about which there can scarcely be any doubt, and that is that in many cases iron is greatly abused, being given where there is no indication for it, or more frequently given in excessive doses. By excessive doses I refer to as much as six to twelve grains a day of reduced iron. The amount of iron in the human body is very small, and every study ever made of its absorption and elimination after absorption has shown that these processes are very slow. Hamburger recovered from the feces nearly all the iron administered, and Jacobi proved that even when the iron was injected into the veins 10 per cent. was at once eliminated by the bowels, liver and kidneys, and the remainder deposited in the liver, spleen and other tissues in the same manner as is any metallic substance. The researches of Gottlieb have also been in confirmatory lines. When we consider that there is in the human blood only about thirty-nine grains of iron all told, we can see that the use of twelve grains a day in the course of a little over three days places a double quantity of the metal in the economy which is not needed, and is either cast out or deposited at any convenient spot to lie undisturbed until it can be extruded.

Much of course depends upon the cause of the anæmia, but there is only one excuse for the use of the doses named, viz.: a condition of the digestive apparatus which results in the formation of a sulphide of iron in great quantity, so that only an infinitesimal amount escapes into the system. This explains the empirical fact that in some cases of chlorosis or intense anæmia iron has to be given in large doses to accomplish any good.

One of the best and most recent papers on this subject is that of Ralph Stockman, who gives a masterly summary of the subject of the absorption of iron in chlorosis. In this summary he points out that we have three chief theories as to the action of iron in anæmia. The first, the absorption theory, is based on the fact that as iron is taken into the body with the food, the iron of the hemoglobin must be obtained from this source, and therefore that medicinal iron given by the mouth must be absorbed. The second theory rests upon the belief that iron is not absorbed when given by the mouth, in addition to that in the food, but simply acts as a stim-

ulant to the mucous membrane of the alimentary canal, therefore increasing the digestion of food and so overcoming anæmia by the general improvement concident upon proper nutrition. The third theory is that of Bunge, namely : that in chlorotic conditions there exists an excess of sulphur or sulphretted hydrogen in the bowel, which changes the iron in the food into a sulphide of iron which he says cannot be absorbed. He believes that the inorganic iron which is given as a medicine saves the organic iron of the food by combining with the sulphur, and so indirectly cures the anæma by the protection afforded the food iron. It is important to remember that each of these theories has been supported by many careful experiments, but it is also well to bear in mind that both the hypotheses and the experiments supporting them may be erroneously based. Thus we have no right to imagine that the inorganic preparations of iron have a stimulating power over the alimentary mucous membrane, or even if they have, that this power is exerted in the peculiar line of aiding in the absorption of the organic iron of the food. Again, the researches of Hamburger, Damaskin, Gottlieb, Muller, Jacobi and Socin which show that after the internal use of inorganic iron there is no increase in the iron in the urine, are valueless so far as the conclusions drawn by them are concerned, namely : that as there is no increase in iron in the urine there is none in the blood, and therefore it is not aborbed. These conclusions are not justified, because they are based on the erroneous view that because iron is not in the urine it is not in the blood, and because it is not in the blood it is not absorbed. Every one knows that in this case of chronic lead poisoning when the body is saturated with the metal there is often no lead in the urine, the poison being deposited in the tissues, and if this is true of lead it may be of iron. Particularly is this to be remembered when we find Stockman quoting the researches of Mayer, Bidder, and Schmidt and a host of others who have proved that we are not to look to the kidneys as the path for the excretion of iron, but to the intestinal walls. Finally, Stockman has proved that when iron is used hypodermically it cures anæmia when it can not stimulate indigestion or counteract sulphides.

Leaving the interesting and intricate subject of anæmia and its diagnosis and treatment we find another condition now recognized as a symptom, though still often classed as a disease, namely asthma. In reality asthma is no more a distinct disease than is dropsy. It is a manifestation of disease or disorder in other organs which result to some extent in local pulmonary signs. I need only mention the fact that every case of this condition will present some evidence of reflex irritation or other extraneous cause if it is carefully sought for, such as metallic poisoning, hay fever, cardiac, or naso-pharyngeal disease. We have therefore made an advance to the gradual knocking away of the props holding asthma on the pinnacle of being a distinct disease, and in a given case must direct our diagnostic and therapeutic powers first to the discovery and removal of the cause and second to the relief of the local manifestation at the time of the attack, including too, in many instances, the treatment of the secondary conditions caused by the paroxysm. It will be remembered that at one time we had two schools of thought concerning the actual local cause of an asthmatic seizure : the one claiming that the obstruction to respiration was due to swelling and hyperæmia of the mucous membrane of the bronchial tubes ; the other that it was the result of a spasm of the muscular fibres of these tubes. Now we know that both conditions exist and that both are probably the result of irritation or perverted function of the vagus nerves, for the filaments of this nerve are not only supplied to the bronchial muscles but also the local vessels. Further than this, the peculiar relation of these important nerves to the cardiac, gastric and pulmonary area and to the recurrent and superior laryngeal nerves all tend to complete a chain of physiological evidence hard to equal, particularly when we remember that the vagus is the governing nerve of the respiratory function and that its origin is intimately associated with important vital centres and nerve roots in the medulla. Here, then, we have an improvement in etiological knowledge which enables us to discern a cause, and give an explanation of almost every empirical fact regarding the use of anti-asthmatic drugs, since nearly every one of these we now know depends upon its action upon the unstriped muscular fibres, the vagus nerve or on the depression of reflex activity, for its therapeutic power.

There is still another condition which is gradually passing from the list of diseases into the list of symptoms, namely diabetes mellitus. Its passage from the dignity of a disease in itself to the less important place of a manifestation of a disease process underlying it, is only delayed because the physiologist and pathologist have not succeeded in fully explaining the process of sugar manufacture in the body in health and disease. Even at the present time we scarcely appreciate the numerous causes which have already been discovered as capable of producing this symptom. Not only does injury to Bernard's center in the fourth ventricle result in hepatic hyperæmia, which in turn results in glycosuria, but section of the vaso-motor fibres in the spinal cord at such a point as to involve the nerves of the liver results in similar disorder according to Schiff. Pavy has proved that destruction of the superior and inferior cervical sympathetic has this effect and it has

been known to follow intense inflammation or irritation of such nerves as the sciatic and trigeminus and some have gone so far as to explain the glycosuria seen sometimes in those suffering from sciatica to the sciatic irritation.

Aside from these nervous factors governing glycosuria very much more recent studies have shown that the gradually growing recognition of diabetes as a symptom is founded on a sound basis, for we have now before us undeniable evidence that such a thing as pancreatic diabetes may occur. Years ago it was first noted as a physiological possibility, but the recent studies of Minkowiski and von Mering with several others have placed the entire question in a better light. Extirpation of this gland results in glycosuria but if one-fifth of it is left behind the sugar does not appear in the urine and this, with other facts, points to the pancreas having a power through a ferment rather than by its general secretion. Clinical cases are also now on record in which after death there has been fonnd a condition of fatty degeneration or atrophy of the gland, either as the result of some morbid process or indirectly through the impaction of calculi in the pancreatic duct which led to a fatty degeneration or a cirrhosis as in the cases recently recorded by Freyham. Therapeutics can do more for the diabetic than the pathologist can tell him of the cause of his disease, but the recollection that diabetes is a symptom of a number of conditions should lead the physician to the recognition of the fact that if a remedy successful in one case fails in another it is probably because he has failed to discover that the cause in each case is not identical.

The ability to apply observation to cases with resulting accurate diagnosis and still more accurate therapeutics can be admired in every instance where it is observed, but it would be difficult to name a more eminent illustration of the beneficent esults of such a trinity of good offices than is pictured by the work of Lauder Brunton on the nitrites. Brunton had noticed two facts, the one in the sick room, the other in the laboratory. By the bedside he found that in many cases of angina pectoris a condition of intense arterial tension existed which was manifested not only in the cord-like condition of the arteries but also by the pallor of the skin due to contraction of the peripheral capillaries. This condition often preceded the attack of pain. Instead of tossing this discovery aside with the dogmatic belief that it was a secondary result of severe pain, he looked further to see if there was a casual relationship between the two conditions. Remembering that the over-distension of any muscular cavity, such as the bladder or intestine, results in pain, it occurred to him that a spasm of the arterial system might result in such over-distention of the heart muscle, already feeble, as to cause the the typical pain of angina pectoris and this hypothesis was supported by a recollection of several facts, namely, that exercise always produces contraction of the blood vessels partly by the contraction of voluntary muscles on large areas of capillaries by the increased demands on the circulation, and finally that it is in gouty persons with irritable blood vessel walls that angina pectoris most frequently asserts itself.

In the laboratory Brunton had found that the nitrites all lowered arterial pressure and by so doing caused the heart to empty itself very readily of blood, partly by depressing the vagus nerves and so permitting increased cardiac action. Here then was, in theory at least, the very remedy which should meet the indications in heart-pang and the practical application of the hypothesis has given us the valuable method of treatment so universally employed.

The interesting relationship between physiological and chemical research and practical therapeutics when they are associated through logical deduction can also be readily studied in the production and use of a number of compounds, but in none other more satisfactorily than in the nitrites. Chemistry showed the various combinations which could be formed in this series and proved that some of them were more stable than others, the pharmacologist showed that those who had stability were more slowly decomposed in the animal organism, and in consequence that their action was not so sudden nor so fleeting, and the therapeutist recognizing that an unstable preparation, such as nitrite of amyl, could only be used for momentary effects at once found the stable compounds of peculiar value when continued action was desired. It is because of this stability and consequent comparative slowness of action that the nitrite of sodium, potassium and nitro-glycerin find favor and that the still more recently employed and more stable compound, cobalto-nitrite of potassium bids fair to come into general use.

I can not leave this subject without pausing for the moment to insist on the importance of this question of seeking always for the cause producing any symptom, in order that our therapeutic measures may be well applied. Many of us have doubtless experienced in boyhood "the pain in the side" about the heart which was such an annoying and incapacitating complication of foot races or the game of hare and hounds. For a number of years I wondered what the explanation of this pain was, and still more why it passed away as the boy gets "his second wind." The reason is now evident. The first effect of severe exercise is to cause a rise of arterial pressure by reason of increased circulatory activity; this is soon accentuated by the obstruction offered to the flow in the capillaries of contracted muscles which ordinarily are vast capillary areas, and finally the effort generates an increased amount of carbonic acid gas in the

blood which stimulates the vasomotor center and still further increases arterial resistance. As a result of these agents and the altered pulmonary circulation the heart becomes distended with blood and pain results. Almost at once, however, the natural demand made for blood made by all organs when inactivity causes secondary hyperæmia in the peripheral capillaries, the lungs are able to catch up to and eliminate the $CO_2$ and the heart is able to carry on its duty with ease, even though the excessive exercise be continued, or in other words the boy gets his "second wind." There are good reasons, therefore, in the custom which prevails among some athletes of taking strychine or caffeine or black coffee before a foot race on the ground that it saves their wind. By means of these powerful, cardiac and respiratory stimulants they enable the heart to overcome resistance and avoid distention of its cavities and also increase the ability of the nervous centres to discharge impulses which the nerve trunks may the more quickly carry to the more tributary muscles. Such a form of explanation underlies the pathology and treatment of "shock," a condition often wrongly treated because its *rationale* is not understood. All causes which give rise to great nerve impulses result in some degree or stage of shock, and these states are chiefly manifested in the heart and vaosmotor system. As has been well pointed out elsewhere, any frightened woman will exclaim "You frightened me so my heart stood still," and a second later will remark, "Just feel how fast my heart beats." The primary shock has so stimulated her inhibitory cardiac nerves that they at first inhibit the action of the heart muscle and then having acted excessively reaction sets in and they permit the heart to move on uncontrolled even to an ordinary degree.

This condition in a more or less modified form is found in all cases of "shock." It has been proved by experimentation on the lower animals that it is practically impossible to produce death by irritation of the vagus and we know that death rarely occurs in the first stage of shock unless there exist previously cardiac disease in the muscle or valves. We very rarely see shock in its first stage except in the man who has "his breath knocked out of him" by a blow, not over his lungs, but over the solar plexus which reflexly results in vagal irritation. It is the second stage of shock which we are called upon to treat. Here we have the entire vascular area in a condition of profound relaxation, a condition exceedingly dangerous to cardiac integrity. Nothing is more stimulating to a man in accomplishing a task than a moderate amount of opposition or number of difficulties, and nothing is more stimulating to the heart than the normal resistance offered by a blood pressure maintained by an intact vasomotor centre. The blood vessels relaxed the heart pumps, as it were, into vacancy or as impotent of result and as exhaustingly as the wheels of an engine on a slippery rail. The result is rapid failure of the cardiac muscle by reason of futile endeavor and because the coronary arteries are imperfectly filled. The great arterial relaxation also results in serious changes in nutrition and the profuse sweat weakens and chills the body. It is at this time that the employment of belladonna or atropine becomes valuable in the extreme. By its peculiar influence on the vasomotor centre it produces normal vascular tone, stops the leaking skin and steadies the circulation, simultaneously tending to raise bodily temperature. If at the same time hot coffee be given as a cardiac tonic containing heat, and strychnine is used, we have a fulfilment of every indication.

Elsewhere I have called attention to what seems a common error on the part of many practitioners, namely, an unnecessary dread of good sized doses of strychnine. We frequently see $\frac{1}{60}$ or $\frac{1}{30}$ grain given at a time when better results would be obtained if $\frac{1}{10}$ to $\frac{1}{5}$ grain was used hypodermically. Profound collapse or advanced shock enable the patient to withstand large doses of this drug, as does severe pain enable him to withstand full doses of opium, and full doses must be used if good results are to be expected. The question of the effect of mental shock or fright upon surgical shock is of great importance. Even animals when brought directly from the street to operating table, show these signs most markedly, and how often does the gynecologist try to get his patient away from the sight of the preparation for the operation, or away from the little children to whom the mother bids a tearful good-bye before going on the table for a severe operation.

A valuable illustration of advances made in our understanding of certain diseases is afforded by epilepsy. There is probably no one here to-day who does not remember the time when the seat of origin of the epileptic seizure was in dispute, some holding that it was due to disorder of the circulation at the base of the brain, and others that it arose from disturbance in the cerebral cortex. Thanks to the studies of Ferrier and a host of others in England and on the continent, we now know that true epileptic seizures have their origin in the cortex and practically nowhere else. This being known, the *rationale* of the employment of the bromides in this disease was speedily explained through the researches of Albertoni and of Seppilli, who found that these preparations so depressed the cerebral cortex in its motor area that far stronger currents were required to elicit muscular response when the animal was under the influence of bromides than when in his normal state or under the influence of the ordinary anæsthetics. At the same time that this depressant action of the bromides was discovered, its powerful influence as a depressant to reflex action became fully appreci-

ated, and its influence in a convulsive disorder, such as epilepsy, became the better understood. It is true that there is still a great deal to be done before we discover the cause of the epileptic attack, or in other words, the changes in the cerebral cells which permit of epileptic discharges, but even in so strange a disorder there is reason to hope that improved methods of research may eventually remove this blot on the fair fame of modern pathology. Nor is this hope without foundation for its accomplishment. Those of you who have had the opportunity to study the elaborate research of Hodges, of Madison, in this State, will already have reasoned that if the changes in the nerve cells produced by excessive exercise can be studied by means of staining and the microscope, that it is not impossible for the changes in epileptic cells to be noted by methods of a similar character, particularly as epilepsy is a disease which is seen in the lower animals as well as in man. While such studies as those which have just been mentioned show advances in the indications for and rational employment of drugs, instances are not lacking in which contra-indications to the use of some remedies, have been developed or the empirical knowledge of their contra-indication explained. Thus it had been a recognized fact in therapeutics that quinine when given in full doses always caused an increase in the number and severity of epileptic seizures in those who were subjcet to this malady, but it remained for the experimental therapeutist to show that quinine stimulated the cerebral cortex and so caused increased irritability of the motor area.

Again, the knowledge of the depressant action of chloral on the motor tract of the spinal cord and the same effect of bromides on the sensory tracts has placed in our hands the best antidotal treatment for strychnine poisoning, while the discovery that conium produces muscular quiet by depressing the motor nerves and not by acting on the spinal cord shows us that in spinal convulsions its employment is irrational because it only blocks the pathway to the muscles instead of preventing the discharge of impulses by acting on the parts directly at fault.

The discussion of this topic would not be complete did I not refer to one very familiar example of the value of physiological and pathological research in relation to disease, namely, the discovery of the malarial germ and the fact that quinine kills this organism. Only ten years ago we were taught that the use of quinine in malarial disease was purely empirical and to-day its rational employment is accepted universally all over the world.

In our pride over our advances made because of good sense we should not, however, sneer at some improvement equally valuable which are in our hands to-day rather because good luck than by logical deduction. Thus the scarcity of quinine and its consequent high price forced the chemist to seek for a method of producing this drug by synthesis, and the result has been not only the direct discovery of the value of salicylic acid in rheumatism, but indirectly the development of that invaluable class of remedies of which antipyrine is the chief. Nor does the value of acetanilide, phanacetine and antipyrine rest upon the action for which they were introduced into medicine, namely, the reduction of fever, but rather upon their power, accidentally discovered, to relieve pain.

The value of some of the compounds derived from the same sources is in several instances quite equal to that of the integral parts. Thus salol is a remedy which many of us would no more dispense with in intestinal diseases than we would give up opium, quinine and digitalis.

Of the prospective value of the treatment of infectious diseases by injections of serum from those who have been rendered immune, of the promises held out to us by the pathologist of a more clear understanding of many puzzling diseases and of the possibilities of drug therapeutics in the near future I shall not speak. Much might be said of them, but in their present condition they exist more in the future than in the present.

We are certainly passing through the golden age of medicine, and by the rational line of our advance are avoiding those theories which have misled our predecessors into beliefs since proved to be erroneous.—H. A. Hare, M.D,. in *Med. Jour of the Am. Med. Assoc.*

## REPORT OF THREE CASES OF HYSTERICAL JOINTS.

I desire to direct the attention of this society for a few moments to a class of cases which, while not infrequent, are far from common. The textbooks upon surgery give but little prominence to this class of cases, and usually dismiss the subject with but a few lines. More than half a century ago Brodie established the existence of these cases, and proved that no pathological condition of the joint was present.

The border line between hysteria and simulation is an exceedingly indistinct one, but I think we must all recognize a difference between a malingerer and a hysterical subject. Without attempting to enter into a discussion of the pathology of hysteria, I desire to call your attention to the fact that, so far as we can ascertain, the affection in hysteria is a real one to the patient, while a malingerer has an inward consciousness that he is a fraud.

By far the larger number of hysterical cases of joint trouble are found located in the hip or knee,

but the cases I desire to report are peculiar in that the ankle was affected in two, while the hip was the affected joint in the third.

These cases assume great importance when we consider that these persons are very apt to feel it their duty to sue some surgeon for damages because he failed to secure a good result from the early treatment. In the three cases I report there was a history of a primary injury, and two of them were anxious to have me express a derogatory opinion of the previous treatment. This one point, the danger of suits for malpractice, should make each one of us very careful about expressing any opinion as to previous treatment. Two of these cases were anxious, and the friends were very anxious, to sue the physicians who had treated the original injury, and I doubt not that any ordinary jury would have been much impressed by the deformity presented.

The diagnosis of these cases sometimes presents great difficulties, the deformity being so apparent that we are misled. It must be regarded as certain that the concomitant symptoms are of the greatest importance in arriving at a conclusion. Fortunately for us, it rarely happens that the joint affection is the only hysterical manifestation present. Usually a careful examination will disclose tender spots over the spine, globus hystericus, hyperæsthesia, or other phenomena of a hysterical nature. By far the greatest difficulty in these cases is the establishment of a diagnosis, but, having once reached a conclusion, I believe that relief can almost always be obtained by the use of the proper method of treatment.

Just here I wish to call your attention to what I believe to be the most essential point in the treatment of this class of cases, and that is isolation from friends and sympathizers. It is wise, I believe, to decline attending all hysterical cases unless the patient and her friends agree to have the patient isolated. Upon several occasions I have undertaken cases of this sort at their own homes, but my efforts have always resulted in failure. Hence, as an almost invariable rule, insist upon having the patients removed to a hospital or elsewhere, and have them placed in charge of a nurse in whom you may place absolute reliance. The part of the nurse is a more difficult one than that of the physician, for the reason that she must remain constantly with the patient; hence it is absolutely necessary that she be firm, yet kind; gentle, yet determined; strong-willed, yet not domineering. The nurse should also be well versed in the art of massage, and know how to administer electricity.

From this description it will readily be seen that one of the most important, if not the *most* important, point in the treatment is the proper sort of a nurse to assist you in the course of treatment to be pursued. See to it, therefore, that you select a competent nurse to assist you, or else your efforts will come to naught.

As a general rule, you will find these cases present a family history much marred by neurotic tendencies; hence the necessity for prolonged and constant care. In a sense it may truthfully be said that we must re-create these individuals.

One more point before passing to a report of the cases: It is extremely important to recognize these affections early, for, if unrecognized, the treatment which would be made use of in true organic disease of the joint would be the worst possible for cases of a hysterical nature. The constant care and attention necessary in the former class of cases would tend to aggravate the complaint, while the various mechanical devices, of so much benefit in true articular disease, might make mischief in even a normal joint, and thus cause the patient to become a permanent cripple.

Case I.—Mrs. R., aged twenty-seven, married; a very large, fleshy woman. Both parents committed suicide. Is her husband's second wife. Soon after marriage her husband infected her with gonorrhœa. Has never had any children. Has leucorrhœa and tenderness in the ovarian region. The history, combined with physical examination, indicates the existence of a pus-tube on the right side.

Last January (1891) she suffered a very slight fall, following which she found that her right foot was raised at the heel, the toes pointing downward and rotated inward. A physician was called, who placed the limb in a plaster dressing; but when the dressing was removed the foot *immediately* assumed the position above described, and has remained so ever since. During the interval she has been treated by several physicians; has been put in plaster several times, had a special brace made, etc., but no benefit has been derived from all the treatment received.

Patient states that she had convulsions at each menstrual period. Says she is very nervous. Complains of long, persistent insomnia. She most earnestly affirms that she has absolutely no power over her ankle.

On December 1, 1891, the day of her admission to the surgical ward of Christ's Hospital, the following notes were made: Position of the foot as above described; the tendo-Achilles appears firmly contracted and the foot rigid; anæsthesia *above* the ankle; walks with two crutches; appetite poor; sleeps badly; tender spots over the spine; globus hystericus and clavus well marked; bowels constipated; emotional, mostly melancholic.

Appreciating the fact that we had, in all likelihood, to deal with a case of hysterical contracture, the patient was placed in a room alone. One nurse only was allowed access to her; all others except the masseuse were strictly forbidden entrance. Her husband and relatives were asked to

remain away from the institution. She was ordered a teacup of beef-tea every three hours, and general massage for fifteen minutes daily.

I have rarely seen a patient of this class more refractory to restraint than was she. Weeping, scolding, threatening suicide or death by starvation were some of the various means she took to work upon my sympathy.

By December 8 the patient began to think that death by starvation was too harsh a method, for she began to complain bitterly of hunger, so her dietary was enlarged by the addition of two eggs and a piece of toast for breakfast, and a small piece of beef-steak for dinner. In the meantime the cup of beef-tea was continued.

On December 8 a note on the history says that she begins to have some control over the foot, is able unaided to bring the foot into proper position. Mental condition much changed, is cheerful and pleasant. Has no complaints to make, but is extremely anxious to try walking without crutches.

By December 10 she had gotten her foot into proper position and retained it there. Believes she can walk all right. Her functions are now normally performed, and her complexion is indicative of good health.

After five more days' confinement to bed I allowed her the privilege of attempting to walk without crutches. Her foot was in normal position, and she experienced no difficulty in walking without any support.

On December 20 it was found to be absolutely necessary for her to sign some legal paper, so I had to relax the discipline and allow her to leave the hospital. She was able to wear her shoe and walk unaided, but her mental condition was still somewhat stormy.

I see this lady upon the streets quite frequently, and she walks as well as anybody. There has never been any return of the trouble.

Case II.—Mary ——. Case seen with Dr. L. S. Colter, January 12, 1892. On the 6th of January patient slipped upon the sidewalk and fell, striking the outer side of the left foot against the curb-stone. She got up and walked half a square to a car, rode about two miles in the car and then walked two squares to a physian's office. He prescribed a liniment and a rubber bandage.

On January 9 the foot became extended, the toes pointing downward, the heel drawn up and the inner side of the foot drawn up. When seen by me on the 12th the condition above described was present. There was no discoloration. A tense, localized, fluid swelling was present over the point where the curb-stone struck the foot. Complained of excessive pain whenever the foot was touched. By diverting her attention it was extremely easy to put the foot into normal position and retain it there, but as soon as attention was called to this member the former condition would be brought about by muscular action.

I gave it as my opinion that we had to deal with a hysterical joint, and advised treatment for the condition. The case passed out from under my observation, but Dr. Colter assured me that the opinion I had expressed was fully borne out by the result of his treatment.

In this case there was not a distinct neurotic history, but she was extremely anxious to have us express an unfavorable opinion of the treatment of the first physician.

Case III.—Grace E., aged twelve, only child, mother a widow, and devoted to her child. Mother neurotic and emotional.

About four years before the case came under my observation the right foot, after a trivial injury, suddenly turned in such a manner that the toes pointed directly outward and the heel toward the other foot. The foot has remained thus ever since. She has constantly complained of great pain in the hip. Several times within the past few years she has had fainting spells while at school. Has also complained of pain in the breasts, to relieve which frictions have been employed. She has been very headstrong, and has usually had her own way with her mother. The diagnosis of hip-joint disease had been made, and the mother advised to be very careful of her.

On December 10, 1892, the mother and child came to my office. After a cursory examination I advised sending her to Christ's Hospital in order that a careful examination could be made, and, if necessary, an anæsthetic employed. This was agreed to.

I was much struck by the fact that the patient was well nourished and had a good healthy appearance. She was unusually well developed for her age, and presented no signs of a cachexia. Her complexion was ruddy, that of a person in excellent health.

The condition of the breasts was first examined. I found nothing present beyond the beginning development of these organs. When I touched the breasts a seraphic smile overspread her countenance, which indicated something other than a painful sensation.

At this point in the examination I playfully remarked: "Grace, you are a fraud." This playful remark was met by a storm of indignation, her denials being very emphatic. To myself I whispered, "methinks she doth protest too much."

An examination of the leg failed to reveal any atrophy—in fact, it was as plump and well rounded as its fellow. There was no shortening or lengthening. When I touched the leg she almost screamed with pain. The lightest touch on any part of the leg apparently produced the most intense pain, and attemps at movement produced

groans and screams. By attracting her attention to other matters I demonstrated that the foot could be placed in the normal position without causing her the slightest unpleasantness.

By questioning the mother more closely I found that the young lady presented many other hysterical phenomena. The globus hystericus was apt to choke her whenever something unpleasant was required of her. Her fainting spells were prone to occur at such times as her lessons were illy prepared. I also found that severe and distressing symptoms would be dissipated very quickly when she was anxious to do something which pleased her fancy.

The diagnosis of hysterical joint being made, I advised the mother to allow her to remain in the hospital. She readily agreed to this, but her enthusiasm began "to ooze out like" when I told her that her daughter must be isolated, and could see nobody but the nurse and myself. After a hard struggle with the mother's feelings I succeeded in convincing her of the necessity for the method prescribed, and she consented to the arrangement.

The patient was then put into a room alone, undressed and put to bed. Daily massage and a milk diet were prescribed. The nurse was instructed to be firm with her, and pay no attention to her complaints. Absolute rest was ordered. She wanted books, but these were forbidden.

After she had gotten into bed and comfortably settled I went into her room and gave her an idea of what we intended to do; she became quite demonstrative, and told me she would never consent to the separation from her mother, and that she would cry constantly until allowed to see her. After a short but futile attempt to have the rules changed, I informed her that it was only two weeks before Christmas, and that her ability to celebrate that day depended entirely upon her strict adherence to the rules. As I was leaving I said: "Grace, I want that foot straight by the time I come to-morrow."

To abridge a lengthy narrative, I will say that the foot *was* straight the next morning, and has been so ever since. The discipline, however, was kept up for two weeks, with the result that all symptoms disappeared. Her appetite, which before the isolation had been capricious, had become excellent. I think I can safely say that she was mentally, morally and physically benefited by the treatment.

Under date of April 9, 1893, I have a letter from her mother saying: "I know her health is better than it has ever been."—J. C. Oliver, M.D., in *Lancet-Clinic*.

Absolute Alcohol is used by Alfred Smith for disinfecting cutting instruments in abdominal work.

## PAINFUL MICTURITION IN WOMEN.

In an admirable lecture upon this subject, Herman (*Provincial Medical Journal*,) states that about one-half the patients who consult a specialist for diseases of women complain of pain in passing water; but it is only the diseases which cause severe pain which require special treatment, so far as the urethra and bladder are concerned. All these cases of severe pain depend upon local diseases, which can only be discovered by direct examination. There are three places in which disease may exist occasioning this suffering,—namely, the *meatus urinarius*, the uretha, and the bladder. Pain in the *meatus urinarius* may be caused by *urethral caruncle*, by chronic congestion or suppurating cyst of the urethra, by abscess of the urethro-vaginal septum, or by a tender, congested condition of the urethral mucous membrane.—Chronic congestion of the urethra is chiefly seen in pregnant women; the urethra is swollen and tender and feels like a thick cord. Not only the act of micturition, but sexual intercourse may occasion almost unbearable suffering.

The treatment for this condition is complete rest, cold sponging on the part, cold hip-baths, the use of vaginal astringent injections, one or two leeches applied by a glass leech-tube to the swollen and tender urethra, and gentle laxatives.

Chronic abscess of the urethra-vaginal septum is rare, and is characterized by a tense, hard, convex, bullous, very tender swelling between the urethra and vagina.

The treatment is evacuation. If there is a spot on the vaginal aspect of the swelling which is thin, and fluctuation is felt, the proper course would be to cut into this thin part. If there is no such spot the urethra should be dilated under an anæsthetic until the canal will admit the finger, and the purulent collection can be evacuated through the urethra.

Suppurating cysts of the urethra form a pouch communicating with this mucous canal by a narrow, somewhat valvular, opening: urine gets into the pouch, decomposes, and inflames the sac. On examination, a round, tender swelling is found in the urethro-vaginal septum, varying in size from that of a pea to that of a hen's egg. By pressure there will be voided either urine or urine and pus, sebaceous matter, or a calcareous deposit, depending upon the nature of the cyst. These cysts do not run the course of an abscess, which gradually close up once an opening has been made for the escape of pus, but they continue indefinitely in the same state, alternately filling with pus and urine, and being partially emptied by pressure.

The treatment is excision of the whole or greater part of the cyst-wall. This is best accomplished by first laying open the cyst freely from the vagina.

What is next to be done depends upon the skill of the operator. This cyst-wall should be dissected out and the raw surfaces brought in contact by means of either cat-gut or shotted sutures. If a portion of the cyst near the opening is left and the rest is closed, the object of the operation will nevertheless probably be obtained, for if the pouch is obliterated there will be no place in which the urine can be retained and decomposed, and therefore no inflammation. If the operator mistrusts his manipulative skill, it may be enough simply to open the cyst freely from the vagina, and then, by keeping the vaginal opening from closing by packing with lint or gauze, retention of fluid in the cyst will be prevented, the urethal opening may close, and then the cyst will be left with an opening only into the vagina. If no more urine gets into the cyst-cavity, inflammation will subside and no further symptoms will be exhibited.

If there be much inflammation of the cyst, of the urethra, or of the bladder, it may be well to make no attempt at closing the opening until such inflammation has been subdued by appropriate treatment. If the cyst is suppurative, or not open, or the urethral opening of an inflamed diverticulum has become closed, the condition cannot be distinguished from an abscess. When the pus-cavity has been opened, its cystic character will be inferred from its definite smooth fibrous wall. An abscess has not a thick fibrous wall. The inside of a diverticulum may be trabeculated, so that the origin of the pus cavity cannot always be surely made out from the feel of the interior. If the cavity be an abcess, it will quickly fill up; if it does not quickly become obliterated, it should be treated as a cyst. In some cases the patient will complain of severe burning, cutting pain at each act of micturition, but the meatus will be found to be healthy, nor on palpation through the vagina can any area of inflammation be felt. On urethroscopic examination of the mucous membrane it will be found a vivid red or deep purple, appearing in patches or involving the whole mucous surface. Passage of the catheter is extremely painful.

The treatment is to apply some alterative to the diseased mucous membrane; the best, in the author's opinion, is iodoform. The application is most conveniently made by putting into the urethra a bougie made of iodoform and cacao butter. A little wool put between the labia will prevent the bougie from slipping out. In recent cases the use of three or four bougies will cure the patient. In cases of very long standing more prolonged treatment will be required. Nitrate of silver is also serviceable in this condition. In some cases application of nitric acid to the tender part is followed by relief. Dilatation of the urethra is also to be recommended. In some cases both the meatus and urethra are healthy, but on passing a bougie great pain is experienced as it enters the bladder. In these cases a urethroscopic examination will show either hyperæmia or fissure of the vesical neck, the symptoms of extreme pain on micturition persisting afterwards; also great frequency, and difficulty in emptying the bladder. Sometimes a little blood escapes with the urine. The urine is clear, and there is tenderness about the vesical neck. Direct examination shows the fissure as a small grayish ulceration, with red, inflamed edges at the vesical neck.

The treatment consists in dilatation of urethra under anæsthesia; this is best accomplished by means of Hegar's dilatators until the urethra admits the finger. Temporary benefit always follows this procedure, and sometimes permanent cure. The objections to this treatment are that there is danger of septic infection of the bladder and of permanent loss of control over the sphincter. Inconvenience rarely results unless dilatation is carried beyond the point necessary to admit the finger. In case the dilatation is unsuccessful in relieving symptoms, vaginal cystotomy is indicated. To perform this operation a director should be introduced into the urethra and held exactly in the middle line. Open the bladder from the vagina by cutting upon the director. If the incision is exactly median, no important part can be wounded. To prevent this opening from closing, Greenhalgh's India-rubber stem may be employed, or the vesical mucous membrane may be sewed to the vagina on each side by a catgut stitch. All pain ceases at once, and if the artificial fistula is kept open long enough, the ulcer heals, and then the fistula can be closed and the patient remains well.

To minimize the discomfort of the artificial incontinence resulting from this operation, the patient should be kept upon a fracture-bed. The rest in bed is of itself beneficial. If nothing is done to prevent the healing of such an incision of the bladder, it soon either heals or contracts to a canal only large enough to admit a probe. As to how long this fistula should be kept open no rule can be given. If as the fistula heals symptoms return, the artificial opening should be again enlarged.

Baker's method of treating these cases is to keep the patients in bed for only a few days, then to fit them with a urinal, and allow them to get up and enjoy fresh air and exercise. The fistula is kept open for months, and is not closed until the interior of the bladder has ceased to be tender and, in case of cystitis, until all trace of pus or blood has disappeared from the urine. This, however, sacrifices the advantages of rest, and it has the discomfort of constant soiling of the clothing. —*Therapeutic Gaz.*

---

The prolonged and habitual use of opium in any form will cause organic renal disease.

TREATMENT OF ECLAMPSIA.—In a paper read before the Paris Academy of Medicine, M. Charpentier presented the following conclusions: (1) Every pregnant woman whose urine gives the slightest indication of albumin should be immediately put upon an exclusive milk diet. This regimen is the preventive treatment *par excellence* of eclampsia. (2) When a patient attacked by eclampsia is vigorous and cyanotic, bleeding, from four to five hundred centigrams is indicated, and should be followed by the administration of chloral. She should be put upon a milk diet as soon as possible. (3) When the patient is delicate, the cyanosis less marked, the convulsions less frequent, chloral alone may be sufficient. (4) Labor should be allowed to begin spontaneously, and to pursue its natural course whenever possible. (5) If the contractions are insufficient, delivery may be accomplished by version, or by the forceps, if the child is living; if dead, by cephalotripsy, basiotripsy, or cranioclasis. (6) Interference should be postponed until the parts are completely dilated, so that the operation may be performed without injury to the mother. (7) Labor should be induced in those cases only in which medical treatment has completely failed. (8) Cæsarean section, or incisions of the cervix for the purpose of inducing labor, should never be attempted.

In the discussion on the paper M. Guénot believes eclampsia to depend upon the association of two elements: toxæmia and hightened reflexes. Many cases in which reflex influences are the preponderating cause are relieved by delivery; others suffer from genuine toxæmia and die in spite of all treatment.

There is another class between these two in which treatment may be very efficacious. Unfortunately the symptoms are not easily differentiated. Chloroform is an important remedy when the convulsions are caused by reflex action, but its prolonged use may be dangerous when they are due to toxæmia. Light, noise, and cutaneous irritation should be avoided, and Guénot does not recommend blisters, leeches, or bleeding. M. Tarnier has injected blood serum taken from the patients suffering from eclampsia into the veins of a rabbit, thus detecting the presence of toxæmia. It requires ten grains of normal human serum per kilogram to kill a rabbit, and when less is sufficient toxæmia exists. If the animal succumbs to three grams we may be sure the patient will not recover; but if eight are required prognosis is favorable. M. Jaccoud recommended milk as a preventive, and as a curative when the danger of convulsions is not imminent. As soon as the presence of albumin is recognized, milk diet should be instituted and maintained until after delivery, even when the symptom does not persist. Albuminuria is but a danger signal, and the danger may remain after the signal disappears. Systematic inhalations of oxygen, regulated according to the composition of the urine, should supplement the milk regimen. If the only change in the blood consists in the presence of albumin, thirty liters of oxygen should be inhaled during the twenty-four hours; but if organic depuration be lowered below the physiological minimum, the quantity must be doubled or even tripled. The patient should not be permitted to take cold, especially after the sixth month. If this accident occurs we may expect all the consequences of renal obstruction, and general bleeding is the only means rapid enough to re-stablish permeability of the kidneys. Jaccoud prescribes as a preventive a mixed diet for all pregnant women, one liter and a half every twenty-four hours during the first six months, and two liters during the last three, gradually decreasing the quantity until its final abandonment, six weeks after delivery.—*Occidental Med. Jour.*

THE PERIOD OF INCUBATION OF THE INFECTIVE FEVERS.—The period of incubation of the various infective fevers has been a matter of great discussion, and one concerning which definite conclusions have not been reached. A report on this subject by a committee of the London Clinical Society will be received with much interest.

The material which the report contains was obtained in response to a circular letter issued in 1889 by a committee over which Dr. Broadbent presided. The large mass of documents received was digested by Dr. Dawson Williams, one of the honorary secretaries of the Committee. Dr. Williams was at the pains to go through the whole of the reports made by its medical inspectors to the Medical Department of the Local Government Board since 1878, which had been laid open to the inspection of the committee by Sir Geerge Buchanan, one of its members. Many important facts and observations, in respect especially to diphtheria, typhoid fever and scarlet fever were thus obtained.

The system upon which the summaries were prepared has been to take first those cases in which the exposure to the source of infection was for a short time—a few minutes or hours—at a known date. These have been made "the basis of the conclusions drawn as to the duration of incubation; while other histories, in which only the date of the commencement or cessatson of exposure to a source of infection was given, have been used for contributory evidence." The duration of infectiousness is also investigated by the light of the data supplied; and the length of time which a patient who has suffered from the disease should be isolated, the period during which a susceptible person exposed to infection should be quarantined, the liability to the retention of infection in clothes and to its dissemination by milk and water, are also considered.

The conclusions of a committee which has evidently gone over the subject so carefully are of much importance, and deserve to be presented here :

Diphtheria, two to seven days ; oftenest two.

Typhoid fever, eight to fourteen days ; sometimes twenty-three.

Influenza, one to four days ; oftenest three to four.

Measles, seven to eighteen days ; oftenest fourteen.

Mumps, two to three weeks ; oftenest three weeks.

Rubeola, two to three weeks.

Scarlet fever, one to seven days ; oftenest two to four.

Small-pox, nine to fifteen days ; oftenest twelve.

Further investigations were made with regard to the time and duration of the infective period.

Diphtheria was found to be infective during the period of incubation, attacks and convalescence.

Mumps and rubeola are also infective for three or four days before the onset of the parotiditis and appearance of the rash.

The contagiousness of measles speedily disappears and does not continue in disinfected persons for over three weeks.

Typhoid fever is infectious from the time of onset until two weeks after the fever has gone and convalescence set in.

As is well known, the contagiousness of scarlet fever varies greatly, but is generally continued a very long time—certainly until desquamation ceases, and sometimes as long as eight weeks.—*N. Y. Med. Record.*

Salicylates in the Treatment of Pleural Effusions. — Dr. George Dock, (*Therapeutic Gazette*), reviews the history of this subject, and draws the following conclusions :

1. Salicylic acid and its salts are among the most effectual agents in the treatment of pleurisy with effusion.

2. In effective doses the remedy is harmless, and with proper care in the selection of the preparation and its administration causes little or no discomfort to the patient.

3. Salicylates act most promptly in pleurisies with serous effusion of recent origin or of long standing, but they are efficient in simple dry pleurisy, and often act favorably in secondary pleurisy.

4. There is no evidence that they are useful in suppurative cases.

5. The drug acts as a diuretic, but may have an effect on the pathological process, or on the cause of the disease.

6. Salicylates have a more marked action on pleurisy than the diuretics commonly so-called.

7. The duration of treatment with salicylic preparations is less than with diuretics, common salt, or roborant medication.

8. The remedy can be used at the earliest period, and favorably affects all symptoms.

9. The drug may be given in the form of the acid or any of its salts, in doses of a drachm of the former, or one to two drachms of a salt daily. In ordinary cases it is not necessary to give the large doses, and sixty to ninety grains of sodium salicylate or of salol may be considered full beginning doses, to be diminished one-third, or one-half if the effect is manifest.

10. The ordinary precautions must be observed in giving the drugs, and during their administration the total amount of urine should be measured daily.

Rectal Injection of Saline Solution in a Case of Severe Hæmorrhage During Abortion.—I was lately called to see a woman, aged thirty, who had just aborted, the process being accompanied by very severe hæmorrhage, which had nearly ceased on my arrival. The patient was the mother of three children born alive ; all the labors had been accompanied by severe loss. So great had been the hæmorrhage in her last confinement that her medical attendant warned her against the risk of a further increase in her family. I found the patient in a deplorable condition from the acute anæmia. The pulse was 140 to 150, small, running and occasionally irregular ; the cardiac sounds were faint and the apex beat imperceptibly. She was extremely pallid and restless and could not get enough air. She complained of nausea, with constant retching and vomiting of small quantities of mucus. Every few minutes she became thirsty and then faint, and was unconscious at times. Notwithstanding treatment by raising the foot of the bed, bandaging the legs, hypodermic injection of brandy, etc., the faintness, sickness and feeble pulse continued, the patient becoming even more prostrate. I determined after an hour to try the effect of a chloride of sodium enema, one drachm to the pint of water, at the temperature of 100°. The patient having had severe diarrhœa I was afraid the injection would not be retained, but this was successfully accomplished by holding a pad over the anus for a few minutes. The effect was extremely beneficial, for within twenty minutes the pulse fell to 120, the color improved and the sickness and faintness almost entirely disappeared and she expressed herself as feeling much better and more comfortable. In half an hour she was able to take and keep down a small quantity of beef extract. Shortly after she had a little sleep. The patient made an excellent recovery and was able to be out and about a month later. I feel confident that the saline enema saved the patient's life.—Dr. Nicholson in *Lancet.*

THE CURABILITY OF LARYNGEAL PHTHISIS.—Laryngeal phthisis is generally looked upon, and with good reason, as a malady of very bad augury, so much so indeed that only specialists think it worth while to attempt any treatment of this distressful condition, and then only in a half-hearted away. At the last meeting of the British Laryngological Association, however, several cases were related which go to prove that laryngeal tuberculosis can, under certain circumstances, be cured, or perhaps we ought to say, will, under certain circumstances, get well. In other words, it is not the implacable disease that clinical lecturers teach and text-books figure. No one plan of treatment seems to ensure success, and this lends support to the contention that treatment has very little to do with the recovery. Certain it is that the local lesions in the throat oscillate according to the general condition of the patient. When the general condition improves then the local mischief displays a tendency to ameliorate, and this without any particular regard to the method of treatment adopted. The practical lesson to be drawn from this fact is that general treatment is of greater importance than local treatment, and cod liver oil applied to the stomach is of more benefit than lactic acid applied to the throat. This is only in accordance with what we know of tuberculous affections in other parts of the body, which, if they are recovered from, subside *pari passu*, with an improvement in the general health.—*Hosp. Gaz.*

THE ANATOMICAL RELATIONS OF THE TONSIL.—The tonsil is of all the organs in the body possibly the most completely isolated. It lies in a cavity between the anterior and posterior pillars of the fauces, which is itself lined by a fibrous expansion of the pharyhgeal aponeurosis, thus shutting off the tonsil from the deeper structures and facilitating its complete enucleation should this under any circumstances be deemed necessary. The basement membrane, however, is traversed by the lymphatics which run directly to the deep glands internal to the common carotid artery. These anatomical details are of great importance in respect of the occurrence of malignant disease in the tonsil, a by no means rare event. The absence of enlarged glands at the angle of the jaw affords no evidence of the glands being implicated, for the deep glands may be infected without there being any outward and visible sign of the fact. The only hope of life for the unhappy victims of malignant disease of the tonsils lies in early diagnosis and complete extirpation. This can be effected without any great difficulty by means of enucleation after microscopical examination of a portion of the diseased and enlarged tonsil.—*Hosp. Gaz.*

THE EMPLOYMENT OF SODIUM SALICYLATE BY ENEMA IN THE TREATMENT OF ARTICULAR RHEUMATISM.—As a result of the employment of sodium salicylate by enema in the treatment of fifteen cases of acute articular rheumatism, seven of chronic articular rheumatism, one of pneumonia, one of puerperal septicemia, and in a healthy individual, Erlanger (*Archiv für klin Medicin.*) recommends this method of medication in all cases in which the salicylates though indicated, cannot, for one reason or another, be taken by the mouth. It is essential, in order that absorption take place, that, if the bowels have not been spontaneously moved, a preparatory enema of water be given to clean out the lower bowel. The medicated enema should contain from a dram and a half to two drams of sodium salicylate, with half a dram of tincture of opium and three ounces of water. It should be warm and is best administered in one dose. The nozzle of the syringe should be introduced into the bowel for a distance of about eight inches. The patient is to be instructed that the enema is to be retained and not expelled.—*Med. News.*

A WARNING ABOUT THE FORCEPS.—In a clinical lecture, Prof. Goodell is stated to have said to his class: "Let me warn you, as young men, to resist the temptation of keeping the forceps on too long in your undue haste or excitement to deliver the woman. Make it your rule to take them off when the head is well down and the perineum begins to bulge, unless the pains have stopped, or the woman is in puerperal convulsions, or she is in any condition demanding prompt delivery. By observing this precept you will at least avoid the accusation that 'the doctor tore her with his instruments'; for it is indeed too true that the physician in his haste to deliver does often tear his patient, either by a too hasty delivery, or by pulling parallel with the long axis of the woman's body, instead of following the curve of Carus."—*Med. Summary.*

CLINICAL INVESTIGATIONS ON THE ACTION OF CHLOROFORM ON THE KIDNEYS.—Rindskoff has studied the urine chemically and microscopically. In 93 cases qualitative changes were noted 31 times, *i.e.*, every third case undergoing chloroform narcosis will produce a pathological urine. An analysis of the 31 cases shows: albuminuria alone six times, albuminuria and casts, six times, casts alone, 19 times. The albumin and casts usually disappear three days after the operation. The quantity of cholorform inhaled is an undoubted factor in engendering the pathological condition of the urine. Attention is directed to the extreme caution necessary in aggravating an existent nephritis by chloroform narcosis.—*Munchener med. Wochenschrift.*

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, SEPTEMBER, 1893.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## SYMPHYSIOTOMY.

The recent report of a successful operation by two gentlemen in Toronto, for the relief of a woman suffering from an extreme contraction of the pelvis, draws our attention forcibly to the revival of the old operation of symphysiotomy for the relief of such cases where a great difference exists between the size of the presenting fœtal head and maternal passages.

In a recent number of the *Journal de Medecine de Chirurgie, et de Pharmocalogie*, of Brussels, there is an excellent paper on Antiseptic Symphysiotomy in Pelvic Contraction, by Dr. J. Cocq, who states that the operation is only permissible when performed with antiseptic procedures, for its real success depends upon the rigor with which they are observed.

It may be done by any practitioner with the simple instruments of an ordinary physicians outfit, and everyone should be as familiar with its details, as an operation of urgency, as with tracheotomy. By means of symphysiotomy a separation of the pubic bones for six centimetres may be obtained without danger. Such a separation would correspond to a lengthening of the antero-posterior diameter of from twenty to twenty-two millimetres, and to one of the sacro-pubic line of from thirteen to fifteen millimetres.

There is also a diminution of from six to eight millimetres in the bi-parietal diameter of the fœtus, in consequence of the engagement of one of the parietal eminences between the separated pubic bones.

The operation should not be performed at term, on a woman having a pelvis with a smaller diameter than six centimetres and seven-tenths, because the gain of twenty-two millimetres in a pelvis of that size would afford an antero-posterior diameter of only eight centimetres and nine-tenths. As the bi-parietal diameter (nine centimetres and a-half) of an infant at term may be diminished six millimetres in consequence of compression of the head, it is seen that an infant with a head of that size may, by means of symphysiotomy, be enabled to pass through the pelvic strait.

The operation is favorable to the child because recent statistics show a very insignificant fœtal mortality; and it is favorable to the mother, because the same statistics show neither death nor accident to her.

The sequences of the operation, from the standpoints of subsequent consolidation of the symphysis, of capability of standing erect, and of the power of walking, are excellent.

At term, after fruitless attempts to apply the forceps or to practice version, symphysiotomy should always be practised if the child is alive and the superior conjugate diameter is greater than six centimetres and seven-tenths. Before term the operation may be done when the diameter is less than this, not greater than four centimetres and a-half. It therefore renders artificial premature accouchment practicable, when formerly abortion was considered the sole resource to the graver procedure at the termination of pregnancy.

## NEWSPAPER CORRESPONDENCE.

Under the above heading our contemporary, the *Ontario Medical Journal*, takes us to account for an editorial article that appeared in our July issue, in which we undertook to show that the Medical Council had acted unfairly towards th two old Ontario journals. We do not intend to go deeply into the matter again; for we have said what we had to say; moreover we issue the CANADA LANCET for our readers, and not in the interest of any body, corporate or otherwise, and as a very large number of our readers are not residents of Ontario, and have in consequence but little interest in matters pertaining purely to Ontario, we spare them.

Let us say at once, that we have no fault to find with Dr. Orr, the "managing editor," for getting all he could for his journal; that was business; dollars; and we all have a wholesome respect for dollars. It was the Council we criticized, not an individual member, who got the subsidy through for his own paper.

We have not had an official report of the proceedings at the late session of the Council, but, unless we are sadly misinformed, or unless the whole affair was cut and dried before the question of subsidy to the journal came up at all in committee, the offer of the *Practitioner* and LANCET was before the Council, previous to the passing of the subsidy. "The managing editor" of the subsidized journal has charge of the revising of such official report as goes to the country. He pays (we presume) the stenographer and the printer, and looks after the report entirely. We shall see what the official report has to say, regarding our offer, as to the time of its reception, when it was presented to the Council, and one or two other points in that connection. Note, that "the managing editor" of the subsidized journal is on record as saying, "O*n its* (the subsidy) *being awarded to us they changed the style of their offer, etc.*" Again "the managing editor" says he presumes our "thought (of cliquism in the Council) was brought forth by the fact of the subsidy being given to us instead of to it." What can he mean? We never asked for a subsidy. We never expected a subsidy. We are not a member of the Council. How could we expect to get a subsidy through?

"We can give a distinct denial to the statement that any member was appproached or canvassed for a vote for the subsidy to this paper."

"As a matter of fact, the only member with whom it was talked over at all, both spoke and voted against the granting of a subsidy to any one."

Will the "managing editor" read the above two sentences, written, we suppose, by him, and then explain? First he denies distinctly that "*any member was approached or canvassed, etc.,*" but in the next sentence, only a few words further on he says, "*the only member with whom it was talked over at all, etc.*" Why was this *one member* ap- "proached," "talked to," "canvassed," or whatever term may be applied to the process? Were the others all *solid?* If so, how did the "managing editor" know they were solid? Clarvoyance? Mesmerism? Hypmotism? Catalepsy? What was the mental state of the "managing editor" when he knew the *one member* with whom it was necessary to talk over the matter of the subsidy?

Further comment is unnecessary. In the mean time we are anxious for an opportunity to look over the report of the late meeting of the Council.

## ORGANIC EXTRACTS IN THE TREATMENT OF DISEASE.

The alleged beneficial results, arising from the hypodermic injection of certain organic extracts, in the treatment of various disorders, mainly of the nervous system, have not, on further trial, materialized. Dr. Hammond's *cerebrine*, of which mention has previously been made in this journal, does not in the hands of other observers, give the same results which the discoverer succeeded in getting.

The use of the hypodermic syringe, to enable the material to get directly into the blood, without having to run the gauntlet of the alimentary tract, with all its reducing agents, makes the idea more conceivable than that which supposes good can come by *feeding* the patient upon certain organic substances. But the extracts in order to be safely used hypodermically, have to be sterilized, a process which must, we think, simulate the action of the digestive ferments upon animal products.

Now, it seems antagonistic to all physiological understanding that these organic materials can pass through the digestive tract without being so entirely changed that, the substance desired to be selected by the organism for the reconstruction of the special debilitated or broken down tissue no longer exists.

More recent investigations and clinical experience go to show, however, that there is something in the theory of a selective power by the organism, of just the pabulum necessary for the reconstruction of incapacitated organs or tissues. Thus there is ample evidence that myxœdema has been successfully treated with the juice of thyroid glands. Success has also been noted in the treatment of diabetes mellitus with pancreatic juice.

Dr. Mackenzie, writing in the *British Medical Journal*, found that during its administeration the

patients lost their feeling of lassitude and felt better in every way. Thirst was distinctly diminished, the daily amount of fluid drunk falling from an average of twelve pints to six pints; the urine was also diminished, but the relative amount of sugar passed was not affected. Very careful observations were made in the case of two patients under the care of Dr. White. In one case he found the amount of sugar distinctly lessened under the use of the raw pancreas by the mouth. The hypodermic injections of the liquor pancreaticus had much less influence. In summing up the results of his experiments, he says that the patients took the raw pancreas quite easily, but in a few it seemed to induce an erythema of the skin. In all it produced an increase in body weight and a distinct feeling of strength; but the treatment had almost no action on the quaiity of the urine, on its specific garvity, and on the amount of urea contained in it.

Here then we see that a thoroughly scientific observer obtained better results when the pancrease was given by the mouth, than when it was given *scientifically* by the hypodermic syringe!

Brown-Sequard has not weakened in any particular, as to the good effects produced by his mode of treatment. At a late meeting of the French Academy of Sciences, he announced that although the testicular fluid possesses no direct curative influence upon the different morbid conditions of the system, it can by subcutaneous injections cure, or considerably ameliorate, the most varid, states, organic or otherwise, or at least cause a disappearance of their effects, and that these actions of the fluid are due to two different influences. By the one, the nervous system gaining in force becomes capable of improving the dynamic or organic condition of the affected parts. By the other, which depends on the entrance into the blood of certain new materials, the fluid contributes to the cure of morbid conditions by the formation of new cells or other anatomical elements.

It is to be hoped that this method of treatment may yet be placed upon a scientific basis. So far it is largely empirical, but with the best of educated observers now in the field, order most come out of chaos, the chaff must be separated from the wheat, and something like a rational explanation of the therapeusis of organic extracts will be given us.

## CANADIAN MEDICAL ASSOCIATION.

The twenty-sixth annual meeting of the Canadian Medical Association will be held in London, on Wednesday and Thursday, 20th and 21st September, under the presidency of Dr. Sheard, Toronto. It is to be hoped that the interest hitherto shown in the meetings of the Association will be increased this year; and judging from the number of communications received, and the papers promised, the success of the meeting is already assured.

Any member desirous of contributing a paper, will kindly communicate with the General Secretary, D. Birkett, Montreal, as to title of paper, as soon as possible.

The following papers have already been promised:—"Address in Surgery," Dr. Hingston, Montreal; "Cases in Practice," D. Campbell, Seaforth; "Treatment of Chronic Endometritis," Dr. Conerty, Smith's Falls; "Sanitary Science, Some of its Features," Dr. Canniff, Toronto; "Angioma of Eyebrow," Dr. King, Toronto; "The General Practitioner and the Insane," Dr. Anglin, Verden; "Some Recent Changes in British Law, Affecting Coroners' Inquests," Dr. Johnston, Montreal; "Is Alcohol in all Doses and in all Cases a Sedative and Depressant," Dr. Harrison, Selkirk; "Displacement of the Kidney," Dr. Eccles, London; "Thyrotomy for Large Sub-Cordal Spindle-celled Sarcoma, with Presentation of Case," Dr. Birkett, Montreal.

---

Aperient Pill of Sumbul.—Sumbul, or musk-root, is an excellent antispasmodic and nervous tonic. Its action resembles that of musk and valerian. In small doses it stimulates appetite and improves digestion. It allays irregular nervous action and is beneficial in depressed or excitable condition of the nervous system. Sumbul may be very advantageously employed in the treatment of hysteria, neurasthenia, neuralgia, functional irregularity of the heart, restlessness, the insomnia of chronic alcoholism, and nervous dyspepsia. The extract is given in the dose of $\frac{1}{4}$ to 1 grain. It is essential that it be made from a pure specimen. As most of these disorders occur in neurotic individuals—especially women—with impaired nutrition, a morbidly sensitive

organization, dyspeptic difficulties, and sluggish movement of the bowels. I have advantageously, in many instances, associated it with nervine and laxative remedies. The following combination which I (Shoemaker in *Med. Bull.*) have devised is now put up on a large scale by the well-known manufacturing pharmaceutists, Messrs. William R. Warner & Co. Each pill contains:

℞—Ext. Sumbul, . . . . . gr. i.
Asafœtida, . . . . . gr. i.
Ext. Cascar. Sagrad., . . gr. ss.
Aloin, . . . . . gr. 1-10.
Ext. Nucis Vom., . . . gr. $\frac{1}{8}$.
Gingerine, . . . . . gr. $\frac{1}{4}$

M.—The dose is 1 or 2 pills.

From a long list of cases in which the above pill proved of value, a few examples are selected:

A light complexioned, florid young woman became subject to spasms of hysterical chorea. There were twitching and jerking of the muscles of the forearm and face. Two pills were administered thrice daily, with excellent results. The paroxyims gradually became less frequent and at length ceased.

A woman was subject to aching pain in the loins, radiating to the pelvis and groin. Attacks of intercostal neuralgia also occurred; she was weak, and often had palpitation of the heart. The patient made a complete recovery.

The same treatment was of marked benefit in the case of a woman who, consecutive to her first confinement, had suffered for nearly a year from palpitation, dyspepsia, constipation, mastodynia, headache and giddiness. The action of the heart was rapid and irritable, but there was no organic disease.

A lady, about five weeks pregnant, suffered from an almost constant headache, and could not sleep well; was nervous, depressed, weak, dyspeptic and constipated. The pills corrected the state of the digestive apparatus, banished the pains and nervousness, and the patient progressed without special difficulty to the end of her term.

Things Worth Remembering.—(*Mass. Med. Jour.*) It is authoritatively stated that headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

Ordinarily one woman in eight is sterile, but among women who have fibroids one in three is sterile. (Parvin.)

In facial erysipelas, where you cannot conveniently apply ordinary means, paint the part with a 10-per-cent. iodoform collodion. (Prof. Gross.)

In posterior difplacements of the uterus, always replace the organ before introducing a pessary; the frequent failure of its use is generally due to this cause. (Parvin.)

Where there is a collection of foreign matter, as pus, in the antrum of Higmore, extract the first molar tooth (or more, if necessary), and drain the cavity in this way. (Sajous.)

For specific vaginitis, Prof Parvin ordered mucilaginous injections and warm hip-baths in the acute stage, followed by injections of 1 : 100 corrosive solutions and tampons of boracic acid and glycerine.

Gelsemium will often do more good in irritable bladder than any other remedy. It is especially adapted to those women of hysterical type troubled by irritability at the neck of the bladder, calling for constant urination.

Without exception, the first symptom of pregnancy is an increased frequency of the desire to micturate.

Rhus aromatica, or the fragrant sumach, which grows all through the Northern States, is strongly recommended for incontinence of urine in atonic states of the bladder. From 10 to 15 drops of the tincture are given three times a day.

Salicylic acid is highly recommended as an application to ringworm. It may be used as an ointment, but is much better as a saturated solution in collodion. One application is often all that is necessary to effect a cure, but it may be repeated if necessary. The pain caused is not usually severe.

Boro-tartrate of potassium is the first remedy for calculus in pelvis of kidney; a weak solution must be used, and for a long time, a strong being detrimental. (Bartholow.)

Drop into urine in a test tube a few drops of the tincture of guaiac, heat it about 100°, and if it turns pale blue, pus is present in the urine.

Houghton, of Dublin, says that two hours of severe mental labor abstract as much vital strength from the system as a whole day of physical labor.

Unna treats "red nose" with zinc-and-sulphur ointment externally and ichthyol internally.

A saturated solution of carbonate of soda applied four or five times a day, is said to remove warts speedily and without pain or soreness.

Salicylate of sodium is claimed to have about thirteen times the excretive power of salicin, in the elimination of uric acid.

Examination of Cases for Rotary Lateral Curvature of the Spine.—When a mother brings a little child to you, Sayre, in *N. Y. Med. Jour.*, and asks if there is anything the matter with its spine, don't glance at it in a hurried kind of a way and say, "There is nothing the matter with it; she will grow out of that," but strip the child to the hips, and let her stand in her own natural, easy attitude, giving her time to accustom herself to the surroundings and allow her muscles to relax. In a few moments you will begin to notice a drooping of one shoulder, and that the space between the body and the arms is not the same on both sides. When first in the presence of the physician, very often these children hold themselves quite erect for a few moments; but after the first feeling of strangeness has worn off and their muscles grow a little fatigued, they will allow themselves to drop into the position which they habitually assume at home. And then and not until then, is the slight deformity apparent.

Let the child then stand in front of you. Hold its legs between your knees, and while its knees are straight, let it bend forward and try to touch the ground with its fingers. In this position the scapulæ fall forward and the contour of the back becomes visible. And slight degrees of rotation is often more to be felt with the hand than to be observed by the eye. In a certain number of cases you will find that the starting-point of a lateral curvature is a deformity of the last lumbar and first sacral vertebræ, and sacral junction.

At times the the deformity is more apparent in front than in the back. You will notice a prominence of one hip, the flesh at times sinking in quite sharply above the iliac crest, although the deformity in the back is scarcely discernible.

Among the earliest evidences of rotation you will find the inequality which almost always exists from the umbilicus to the two nipples. This is frequently to be observed before any marked change in the back has taken place. You will also usually find that the breast on the side of the convexity is smaller than on the side of the concavity.

I have seen so many cases of bad lateral curvature, where the mothers told me they noticed an inequality on the two sides of the child when it was still young, but that on consulting a physician they were told that the child would "grow out of it," that I feel that I cannot too strongly impress upon you the necessity of observing these cases closely, the importance of taking measures to straighten these incipient curves, and of being sure that, if the child has a slight curve, it will not "grow out of it" as it grows older but rather grow into it, and when she comes to puberty have so decided a change in the ribs and vertebræ that it will be impossible ever to wholly rectify the deformity.

College of Physicians of Philadelphia.—The William F. Jenks Memorial Prize. The third triennial prize of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "Infant Mortality During Labor, and its Prevention." The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for the purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia." The prize is open for competition to the whole world, but the essay must be the production of a single person. The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1895, addressed to Horace Y. Evans, M.D., Chairman of the Wil-

liam F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserve the right not to make an award if no essay submitted is considered worthy of the prize.

James V. Ingham,
*Sec. of the Trustees.*

Internal Use of Arsenic in Epithelioma.—Prof. Lassar recently reported, *Deut. Med. Zeit.*, *Internat. Jour. Surg.*, a number of cases of cutaneous cancer before the Berlin Medical Society, in which he obtained excellent results from the internal use of Fowler's solution. Owing to the fact that the arsenic treatment is usually resorted to at a time when operative measures are no longer indicated, he determined to employ this method in the earlier stages of the disease. His cases were as follows: A woman, aged 70, came under treatment October, 1892, for a tumor of the size of half a walnut, which had attained this size in six to eight months. Its surface was intact with the exception of a small ulceration, and microscopic examination of an excised portion, revealed typical epitheliomatous tissue. Patient was given thrice daily eight drops of a mixture of Fowler's solution and aq. menthol, equal parts; and at the beginning of December the tumor had cicatrized. The cure has persisted. In a second case of rodent ulcer, cicatrization progressed during the arsenic treatment, and no recurrence has taken place in four months. In the case of a man, aged 66, a spherical tumor had three months previously appeared on the left ala nasi, which was constantly growing. It had a firm consistency, with depressed centre. Specific treatment proved ineffective. In March, 1893, the tumor, which at this time measured $5\frac{1}{2}$ centimetres, was treated by injections of arsenic, but later Fowler's solution alone was given internally in increasing doses. Since then complete involution and cicatrization has occurred. The epitheliomatous character of this case was demonstrated by microscopical examination of excised pieces. If it be remembered that the further growth of the neoplasms was checked as soon as the arsenic treatment was instituted, the objection that the cure was of spontaneous origin loses its force.

Hydrastinine in Uterine Hæmorrhage.—Gottschalk, *Brooklyn Med. Jour.*, says hydrastinine may be employed:

1. First of all, in those uterine hæmorrhages which are traceable to a pronounced congestion of the uterus. To these belong, above all, the often very profuse memorrhagias of spinsters, in whom their is no pathological change in the condition of the genitals. In some of these cases it is possible to obtain a permanent result, so that even after discontinuing the remedy the menstrual flow remains smaller.

2. Also in hæmorrhages which have their pathological and anatomical cause in endometritis, hydrastinine will lessen the quantity of blood; but here, according to Gottschalk's experience, the action is only palliative, not being sufficient alone to cure the local cause of the trouble.

3. For prophylactic or intermenstrual use, hydrastinine is useful before or during the first returning profuse menstruation after an abrasion of the uterine mucosa. It is well known that this menstruation, usually occurring after six weeks, is often very profuse. In the very cases where there was great loss of blood before the operation, it is of great importance to prevent further profuse hæmorrhage. This is possible if the treatment with hydrastinine is begun several days before the expected menstruation, and if necessary, continued during the duration of the menstruation.

4. Menorrhagias caused by retroflexio uteri are best treated by correction of the malposition; but for cases of fixed retroflexion, where the reposition is not yet possible, hydrastinine is a commendable remedy.

5. Secondly uterine hæmorrhages—*i.e.*, those caused by a change of the adnexa and their surroundings—offer a large field for the successful use of hydrastinine. To these belong the menorrhagia and metrorrhagia with pyosalpinx, öophoritis, ovarian tumors, and exudations. Of course, the cause of the trouble is not influenced by the remedy.

6. Climacteric menorrhagias are much diminished by a faithfully carried out hydrastinine treatment.

The Use of Creosote in Determining the Gravity of Tuberculosis.—C. Burlureaux *Gaz. Hebdom. de Med. et de Chir.; Med. Times*, has studied the above subject with the object: First, of warning practitioners against the use of uniform doses of the drug in tuberculosis patients; and, second, of calling attention to the fact that the degree of tolerance of the medicament reveals, in a precise manner, the gravity of the disorder. The subject has been studied under four categories; under the first category are included those patients that tolerate the drug in a most perfect manner; for under the influence of the drug no untoward symptoms are exhibited, but, on the contrary, there is a marked improvement in the appetite and the general strength of the patient, the bodily weight is increased, and the tubercular lesions, both general and local, are manifestly stayed in their progress. Under the second category are placed those patients whose tolerance for the medicament is none the less marked, but in whom, although there is produced a general improvement, the local lesions are not influenced for the better. Patients of the third category have, at first, a tolerance for creosote, but in them, as in the case of those of the second category, the lesions continue in their development; suddenly, and without apparent cause, a marked intolerance comes on, and from this moment the prognosis becomes necessarily bad. A patient that exhibits this secondary intolerance for the drug, may be considered as a hopeless case. Under the fourth category are considered those patients who, from the very beginning of the treatment, cannot at all tolerate the remedy in question; in such patients the prognosis is similarly bad. The author illustrates, with the details of interesting cases, the points which characterize each one of the categories pointed out, and insists that, in general, creosote has, in tubercular disease, as much valve from a prognostic, as Koch's remedy from a diagnostic point of view.

When May Syphilitics Marry?—The question which forms the subject matter of this pamphlet, *Hosp. Gaz.*, is one which the medical attendant is frequently called upon to answer, and any work which will assist him to arrive at sound conclusions will, we are sure, receive a hearty welcome. Dr. Schuster, the author, who is regarded in Germany as an authority on syphilis, in this pamphlet has collected the opinions of the principal European and American writers on the subject, who are all practically unanimous in laying down the rule that at least two years should elapse from the date of infection before marriage is permissible, and then only in cases which have been, during the whole time, under careful and systematic treatment and are apparently free from all manifestations of the disease. Dr. Schuster says he is in the habit of sanctioning marriage, "if after careful examination no symptom of the disease can be discovered, and two efficient courses of twenty-five to forty-eight months' duration have been taken." He adds that he has never had reason to regret giving such advice; nevertheless we should hesitate to endorse it. Indeed the author himself admits "that even after two courses recovery may occasionally not be absolute, hence if a person intending to marry is willing to take additional precaution by waiting four whole years he should be encouraged to do so.

Surg.-Lieut.-Colonel Lawrie publishes in the *Lancet; Hosp. Gaz.*, an experiment (illustrated by a tracing) on the effect of choloroform on the blood-pressure. It is a cross-circulation experiment done on two "pariah" dogs. The "fed" dog was given one grain of phosphorus daily for three days before the experiment to artificially induce weakness of the heart. Cross-circulation was established from the right common carotid artery of the feeder to the left common carotid of the fed, and from the right and left external jugular vein of the fed to the right external jugular veins of the feeder. The experiment shows that when chloroform is sent to the brain alone it produces lowering of the blood-pressure with (1) anæsthesia, (2) stoppage of the respiration, and (3) (?) death, and when it is sent to the heart alone it produces no effect whatever.

Hepatic Massage in Catarrhal Jaundice.—In the *Vratch*, Dr. I. Ch. Wechsler, of Berislavel, warmly recommends the treatment of ordinary catarrhal icterus by massage of the liver performed after the following simple method. The operator places his or her patient on the hepatic region and proceeds to rhythmically compress the liver during expirations, in the same

manner as in the case of so-called "thorax gymnastics," for ten minutes. The *séances* should be repeated thrice daily. The procedure may be easily practised by the patient himself or herself in a sitting posture. In four successive cases a rapid cure was obtained by the writer from the massage alone, no medicaments whatever being employed during the treatment.

TREATMENT OF ACUTE RHEUMATISM—

℞—Salicylic acid,
Lanoline,
Ess. turpentine, } āā . . . ʒijss.
Axunge, . . . . . ʒijss.

Applied to the articulations, *Med. Press*, this ointment possesses many advantages. In the first place, it suppresses the pain in the space of a few hours; by it the swelling of the joint diminishes on the second day, and the fever falls completely between the third and the fifth day. Besides, *internal treatment is unnecessary*, which is of great importance, as every one knows what repugnance patients have to salicylate of soda; and, finally, it is economical.

"THE DOMINION MEDICAL MONTHLY."—This is the name of a new medical journal published in Toronto, under the management of Dr. W. H. B. Aikins and W. B. Nesbitt. It is a bright little journal; proposes to be independent, and to look after the interests of the profession generally. We extend the hand of fellowship and wish it every success.

PERSONAL.—Last week Prof. Dr. Adam Politzer, the distinguished aural surgeon of Vienna, Austria, visited Dr. L. L. Palmer, Toronto, who gave a very interesting evening to a number of medical men, invited to meet his guest. During the evening Prof. Politzer gave a demonstration on the ear, and exhibited preparations showing the condition existing in certain forms of deafness and how to recognize them.

URTICARIA.—Sodium salicylate, in doses of three grains every two hours, is said (*Med. Rec.*) to be very efficacious in relieving urticaria. Three or four doses usually suffice for a cure of the most obstinate case.

Dr. L. L. Palmer, Toronto, has been made a Life Member of the Ophthalmological Society of the United Kingdom of Great Britain.

PROF. KEEN says a good point to bear in mind in diagnosing a case of *Chancre* is that you will never find chancres on the walls of the vagina, as they always appear on its outlet.

T. H. J. PRYCE, M.D., etc., No. 4 Lorne Villas, Clevedon, Somerset, England, May 23rd, 1891, writes: "I take pleasure in giving the following notes on Bromidia. A patient, age 28, suffering from pneumonia and typhoid blood poisoning (the latter was contracted when in the convalescent stage), complained of insomnia, and I put him on Bromidia. Even when in good health he suffered more or less from insomnia, but after having taken Bromidia he slept without difficulty and very naturally, and no headache or constipation followed its use, as was the case when other narcotics were administered. I was very pleased with the results, and prescribe Bromidia often now."

## Books and Pamphlets.

DISEASE IN CHILDREN, a Manual for Students and Practitioners. By James Carmichael, M.D., F.R.C.P. Ed., Physician Royal Hospital for Sick Children; University Lecturer on Disease in Children, Edinburgh. Illustrated with thirty-one charts. New York: D. Appleton & Co. Toronto: Carveth & Co. 1893, pp. 591.

This is an excellent work. The writer avoids padding, and speaks like a thoroughly practical man and a teacher. He aims constantly at showing how the anatomical and physiological characteristics of the period of infancy and childhood tend to modify in many ways the features and clinical relation of diseases in children.

LESSONS ON PHYSICAL DIAGNOSIS. By Alfred L. Loomis, M.D., L.L.D., Professor of the Practice of Medicine and Pathology in the University of New York. Tenth edition, revised and enlarged. New York: William Wood & Co. Toronto: Carveth & Co. 1893.

Dr. Loomis' work is so well known that we need only mention that in the present edition he has thoroughly revised the whole text, and made such corrections as seemed necessary to make it a more complete guide to the student of physical diagnosis. The section on the "Physiological Action of the Heart," and the lesson on the "Examination of Urine," have been entirely re-written. A new lesson on "Clinical Microscopy" had been added.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

### REVIEW OF DIAGNOSIS AND TREATMENT OF ASIATIC CHOLERA.*

BY H. ARNOTT, M.D., LONDON, ONT.

If the first cases which occur in a district could be promptly diagnosed, there would be little difficulty in stamping it out. But unfortunately it presents no distinctive symptom which is not occasionally found in sporadic cholera. Moreover, the characteristic phenomena are not often developed at first, and as the premonitory diarrhœa is frequently controlled with comparative ease, many such cases may occur before it is recognized. The history of its advent in many places inclines me to the belief that the earliest cases have been overlooked as simple diarrhœa. The outbreaks at the asylums of Lauffen and Neittlehen, in Germany, would seem to bear no other explanation, and coming nearer home, the cases occurring in New York City last year, scattered as they were over such a wide area, points in the same direction. These mild cases propagate the bacilli as readily as the more severe, and, in unconscious ignorance, they may be sown far and wide, to bring forth an abundant harvest of malignant cholera. Situated as we are so far to the west, with such abundant warning, we should treat every case of diarrhœa with all the sanitary precautions that we would employ if it were a known case of cholera. While it is true that there are no symptoms whereby we may with certainty diagnose the early stage of cholera from diarrhœa or cholera-morbus, yet there are some symptoms which are very rare in anything but true cholera, such as vertigo, tinnitus aurium, headache and much greater depression of spirits. In any case of diarrhœa, with a possibility of cholera before us, a marked prominence of nervous phenomena should cause us to suspect cholera. When to these are added symptoms of shock, such as rapid, weak pulse and peripheral coldness, the probability is increased; but when, in addition, we have cyanosis and suppression of secretions, it amounts almost to a certainty.

The symptoms are sometimes severe from the outset, but the vivid pictures of the books are rarely seen till in the advanced stage. So far as symptomatology is concerned, it may be taken as granted that, as stated by Osler, "the clinical picture presented by Asiatic cholera is almost identical with that of cholera nostras." Bearing this in mind, it becomes our duty to procure a thorough bacteriological examination, as soon as possible, in any suspected case. By this means alone can an absolute diagnosis be made.

The fatality is said to be all the way from 30 to 80 per cent. of those attacked. Any diseased condition of the intestinal mucous membrane renders the disease very fatal. Bad hygienic conditions, such as over-crowding, bad air, poor food, impure water, or anything which causes a condition of depressed vitality, renders a person an easy prey to any disease, and cholera is no exception. This is an important fact, that deserves more attention than it usually receives. A man may think and declare that he is in good health and may have the appearance of health, and yet, on account of his having been breathing impure air, drinking bad water, or some other cause, he succumbs to a disease from which an apparently weaker person would easily recover. This is known to be true of beer-drinkers who, while they have the enviable, rosy hue of health, make a poor fight when disease attacks them, and it is just as true in regard to other conditions of lowered vitality.

Tobacco is not often referred to as an element in prognosis, yet there are eminent men who do not hesitate to declare that it very much diminishes a man's chances of recovery from cholera.

In attempting to review the treatment of cholera, I shall only take up a few of the remedies and methods which have been employed, and endeavor to discuss the principles involved, without wearying you with details, which are to be found in every medical journal. The indications for treatment are not at all well marked. For instance, it is not certain that the alkalinity of

* Read before the Ontario Med. Association, June, 1893.

the intestinal juices is something to be chemically counteracted; observers are not agreed that the cyanosis is due to the diffusion of blood-serum, and it is open to question whether it is possible to destroy the bacilli in the alimentary canal.

The diarrhœa is the principal and often the only symptom met with early in the disease, and, even regarding this, professional opinion is divided into two great camps. The one looks upon the diarrhœa as an effort of nature to rid herself of the bacilli and their poisonous products, and believe that astringent measures only favor their retention and absorption. Those who favor this view advocate the use of remedies which tend to limit or destroy the cholera germs, together with measures calculated to sweep them as rapidly as possible out of the bowels.

Those who advocate the astringent theory, regard the diarrhœa as a condition which, like all catarrhal states, favors the rapid multiplication of the bacilli. They believe that by checking profuse secretion and allaying irritation they are removing conditions which favor the growth of cholera germs. There is no doubt that many cases have recovered under this line of treatment, whether as a result or in defiance of the treatment, who shall say? There is probably a measure of truth in both theories, as I shall endeavor to show.

There can be little doubt that the undigested food and fecal matter in the bowels forms the most favorable soil for the growth of the bacilli, and the development of their toxines, and there are probably few medical men at the present day who would not regard it as their first duty to remove such material as soon as possible in an ordinary case of diarrhœa. This would also seem to be the proper course to pursue in cholera, not with the object of removing the bacilli, but the materials which favor their growth. For this purpose, castor-oil, Gregory's powder and rhubarb have met with most favor. Of course if this object had been effected by the efforts of nature, nothing would be gained by adding to the irritation. Some who have tried the purely purgative treatment have given it up and gone back to the astringent method, but they probably did not use that judgment which is necessary to the success of any treatment. Sir George Johnston, who may be said to be an apostle of the purgative treatment, admits that there is a time when purgatives should give way to a soothing and astringent course, calculated to allay the irritation and heal the mischief caused by the disease. From several places where this plan has been tried come the most encouraging reports. It was given a very thorough comparative trial in the Liverpool parish infirmary, in 1866. Ninety-one cases were treated with hypodermic injections of morphia, astringents, stimulants, etc., with a mortality of 71.42 per cent. Eighty-seven cases treated with castor-oil and a liberal allowance of food and alcohol gave a percentage 41.37 deaths. One hundred and ninety-seven cases were treated with castor-oil alone, without food or alcohol, and the death-rate was only 30.45 per cent.

Epidemics differ so much, and there have been so many cases which have recovered with little or no treatment, that we must be careful in estimating the value of any method, but a comparative test such as that referred to, is surely of more value than any number of individual experiences.

Cantain's method to a certain extent belongs to the category of eliminatives, for while he adds tannic acid and laudanum to the enema, they do not prevent it washing out the fecal matter and toxines from the bowels as far as it reaches. There is probably very little absorption, and so the tannin and opium will only have a local effect, if any. In early stages this treatment seems to have given good results, but when used in the later stages when the blood has become saturated with toxines and nature requires all her powers of depuration, although it checks the diarrhœa, the patients usually die in a typhoid condition.

In this, as in many other diseases, we are in great need of a more complete knowledge of the natural history of the disease, uninfluenced by drugs. We know at present that many cases get well with little or no treatment, and the most active measures give only a small percentage of recoveries. Fuller knowledge of its natural history would, doubtless, cause us to discard many of our powerful remedies. Opium is one of our most powerful means of relieving pain and shock, which are such important factors in the struggle for life in either a medical or surgical case. It also lessens peristalsis, and diminishes all the secretions, except that of the skin. These properties may prove of great value if wisely used, but powerful weapons

require skilful hands. We must recollect that nature is making a desperate effort to cast off an invader, and if we drug her off to sleep, and check all the measures she has adopted to defend herself, we are giving the advantage to the enemy.

The history of the profession shows that we have had a tendency to mistake relief from suffering for improvement. A patient bled to the approach of syncope, expresses great relief, but it was the relief which comes from the near approach of death. So opium, alcohol, chloroform, etc., give relief by pushing the system a few stages nearer the boundary line of death. Many believe that opium has a stimulant effect in small doses. I am afraid that many young men, and some older ones, have learned by bitter experience, that even minute doses of opium, not only relieve pain, but, under certain circumstances, produce sleep from which there is no waking. Koch could not communicate cholera to guinea pigs till he had narcotized them with opium.

When we discover a narcotic that does not lower the vital powers, we can use it without fear. In the meantime I hold that no narcotic whatever should be used in the treatment of cholera, unless it seems certain that the relief to pain and shock will do more good than the lowering of the vital functions will do harm. In our choice of a narcotic we should select that which will give the greatest relief to pain, and at the same time produce the least depression of the vital functions. Chloroform by mouth or inhalation and chloral hypodermically, seem to meet these indications.

From a study of the action of alcohol it is difficult to conceive how it could do anything but harm. It is certainly an anodyne, but in this respect very inferior to chloral or chloroform. If it were as fatal to bacteria as it is to man, we might expect it would be an excellent germicide, but its action in this respect is very slight. On account of its affinity for water it must assist the disease in robbing the system of its fluids and increasing the thirst. I believe that it belongs to the class of narcotics, all of which weaken the vital powers.

In this I may be wrong, but I find myself in a large and very respectable company, such as Sir William Gull, Sir Andrew Clark, Prof. Wilkes, Prof. Whitla, of Belfast, and a host of others at home and abroad. If this view be correct, it forms one more reason why it should be sparingly prescribed in cholera.

In a disease in which the causative agent is confined, to a great extent to the alimentary canal, we might expect great results from antiseptics. So far, however, there has been no notable advance made in that direction.

Calomel maintains its reputation as the most valuable antiseptic in this disease. Runnuff and Zeimmsen especially assert its superiority. They commence with a dose of from four to eight grains, and continue with from $\frac{1}{3}$ to $\frac{1}{2}$ grain, every two hours. Paul Gibier, of New York, gives the bi-chloride, but calomel is probably, to a certain extent changed into bi-chloride in the stomach and bowels, especially if an acid be given.

Mineral acids are destructive to the bacilli and are found to maintain that reputation in practice.

Muriatic, sulphuric and lactic acids have, so far, been the favorites, but probably here, as in many other diseases, the sulphurous may be found to be superior to any other as an antiseptic.

But it seems to me more reasonable, instead of using powerful poisons to kill the bacilli, to use measures to carry them out of the bowels along with anything which might be a favorable medium for their propagation. If enemata of hot water be used they would have the additional advantage of supplying heat to the body in a very effective manner, and we know its value in inflamed conditions of the stomach.

During the algid stage, many patients are said to have been rescued by injecting water into the blood. Of the several methods which have been adopted to accomplish this, intravenous injection, which dates as far back as 1834, seems to be the most successful. The procedure has been very much simplified. Now, a simple reservoir for containing the fluid, a piece of rubber tubing and a needle trocar for perforating the vein are all the instruments required. Cantain introduced the method of injecting the fluid under the skin. Grettman, of Berlin, prefers this, but in hospital practice generally the intravenous method met with most favor. In private practice the continuous subcutaneous method has been most used, but was followed by abscesses in some instances. The fluid has also been introduced into the peritoneum, but this method has not been used sufficiently to justify an opinion.

Different formulæ for the fluid to be injected have been proposed, but the normal salt solution, containing .75 per cent. of salt and properly sterilized, seems to have given as good satisfaction as anything.

One of the latest methods of treatment has been the Kleb's anticholerine, a toxic material obtained from a pure culture of comma bacilli. It has not been extensively tried, but the reports so far do not indicate that it has much value.

To sum up, it does not seem that late years have given us any remedy or procedure of notable value. The battle yet remains to be fought out between the eliminative and astringent methods. I believe that the eliminative forces will win at no distant day, and that this will mark the first great advance in treatment.

The points on which I am specially anxious to hear a good discussion are:

(1) Cholera frequently exists in a vicinity in such a mild form as to escape detection for a length of time, before malignant cases occur.

(2) The eliminative method of treatment may not give the most prompt relief to suffering, but it ensures much the largest proportion of recoveries.

(3) Opiates should be used only for relief to pain and shock, and then only after other anodynes have failed to give relief.

## THE TREATMENT OF POTT'S DISEASE OF THE SPINE.*

BY A. B. JUDSON, M.D.,

Orthopædic Surgeon to the Out-Patient Department of the New York Hospital.

While caries of any part of the vertebral column cannot be considered an unimportant affection, it is well to recognize the fact that much depends on the region of the spine involved. In the middle dorsal region it is perhaps the most serious trouble, excepting malignant disease, that can attack the bones of the growing child. In this part of the spinal column the destruction is often extreme and the deformity great, evidently because the affected bones are at the greatest disadvantage mechanically. Lower down, the vertebral bodies are so large that they do not lose their relation of mutual support until the loss of substance is very extensive, and above, the vertebral bodies, though small, have less weight to sustain. But in the intermediate portion not only do the bones feel the incessant movements of respiration, but they are also more widely moved in flexion and extension and in lateral curving with rotation than in other parts of the column, and furthermore they are exposed in a peculiar manner to the risk of over-strain from their position in the middle of the column. I think it is in the experience of all of us that in this middle and upper dorsal region Pott's disease continues longest before consolidation takes place. Here we have a most striking illustration of the fact that the recovery from articular osteitis is postponed by unfavorable mechanical environment. As joints in the upper extremity, free from the mechanical stress attending locomotion, recover easily, while those which in the lower extremity, bear the heat and burden of the day, recover only after prolonged and extensive destruction, so articular osteitis in the cervical region of the spine is easily curable, while in the upper and middle dorsal region relief and repair come only after desperate and prolonged risk.

How can we best assist nature to cure this disease in this difficult part of the skeleton? The same general rules apply here as in the treatment of articular osteitis in the lower extremities. We can not cut short the disease by an operation or by any procedure whatever, but can expect with confidence, and must promote by our best endeavors, the arrest of destruction and the beginning of repair. What then can we do to put the affected vertebræ in their best attitude and to raise the defensive and reparative powers of the system to their highest efficiency? As in articular osteitis occurring elsewhere we desire, (1) to relieve the bone of the duty of supporting weight and concussion, and (2) to prevent the affected joint from motion, believing that the arrest of these two functions, weight bearing and motion, are essential to good treatment. It does not seem wise to keep the patient recumbent for the long period necessary. In the management of hip disease we put the affected limb to bed, so to speak, while the patient is up and about. But a similar resort in Pott's disease is impossible. Since the patient is up and, to a certain extent, active in locomotion, our best resort, in my opinion, is to take what

*Presented at the Pan-American Medical Congress at Washington, September, 1893.

benefit can be had from the application of a lever making pressure from behind forwards in the neighborhood of the posterior prejection and counter-pressure from before backwards at two points, one above and the other below the level of the disease. In a limited sense this application relieves the diseased joints from the weight of the body while the patient is up and about, because antero-posterior pressure thus applied transfers a part of the weight and concussion, incident to standing and walking, from the diseased bodies of the vertebræ to the processes, which remain sound. Having thus (1) removed so far as is practicable, injurious pressure from the diseased structures, it is obvious that we have also applied the most effective kind of retentive splint for (2) the arrest of motion in the affected joints.

It does not take much practical experience to convince one that efficient pressure applied in this manner is productive of good. It may not at once arrest morbid action and induce cicatrization of the carious bone. For these events we must wait for the natural re-action, but it is not difficult to believe that nature will the more promptly intervene with reparative efforts if our mechanical applications relieve distress and substitute a feeling of strength for weakness and apprehension. A well-applied support at once gives a degree of relief which finds plain expression in the face and attitude of the patient. As a matter of fact a feeling of security and comfort is afforded by the use of a corset made from any of the materials in ordinary use. I will not indicate the defects of apparatus of this kind. The inexpensiveness of jackets and the ease with which they can be obtained and applied, make them of the greatest service to a vast number of patients who otherwise would have no mechanical support whatever. But when and where it can be done it is necessary to give the patient the benefit of accurately adjusted antero-posterior pressure.

At the best, antero-posterior pressure, no matter how carefully applied, fails to give all the support which is desirable. This is because the leverage is deficient. In the vertebral column there is found no long bony lever such as is at hand in making a mechanical application for fixing the knee. There is, rather, a succession of irregular bones movable upon each other, which, from the nature of the case, impair the success of any attempt to arrest motion or support the column by pressure from behind forwards and counter-pressure from before backwards, because the pressure from before backwards will, a part of it at least, be expended in bending backward portions of the vertebral column above and below the projection. The force thus employed is, however, by no means wasted, as it secures an ultimate improvement in the shape of the trunk, which is often characteristic of patients who have been thus treated.

The apparatus needed is essentially simple, consisting of two parallel uprights united below by a pelvic band, and diverging at their upper ends at the base of the neck, and curving over the tops of the shoulders. Pressure from behind forwards is made by two pads attached to the uprights at the level of the projection and applied a short distance from the median line on each side. Counter-pressure from before backwards is made below by a strap passing from one end of the pelvic band to the other in front of the pelvis, and above by straps, one on each side, passing from the upper end of the upright through the axilla to be buckled to the upright. The most important feature of a brace constructed to carry out these views is the use of mild steel for all the metal parts. The use of this material puts in the hand of the surgeon the power to modify the degree and direction of pressure to the changing shape, and to meet the increasing tolorance of the skin to pressure. The re-action of the skin should receive special and constant attention, and gentle and gradually increasing pressure should be made till the limit of comfortable tolerance is reached.

By patient attention to details, apparatus thus designed may with certainty be made comfortable and efficient. The diffused support furnished by a jacket is often secured by the addition, to the simple lever described above, of aprons and other pieces which add to the feeling of stability and security without interfering with the chief function of the apparatus which is to make antero-posterior pressure. One hardly knows where to begin and where to end in the consideration of the details which demand attention in practice of this kind. I will close by saying that cheapness and cleanliness may be promoted by leaving the steel parts of this brace unpolished, and covering them with a single layer of adhesive plaster, and then

with strips of canton flannel or silk cut bias, and renewed without much trouble as often as may be desired.

## Selected Articles.

### THE ÆTIOLOGY AND THERAPEUTICS OF ALCOHOLIC INEBRIETY.

The "alcohol habit," "drink craze," "thirst for alcoholic liquors," oinomania, dipsomania, comprehended under the general title Inebriety, and for which the latter is a synonym, is oftentimes, if not always, the symptom or outward and prominent manifestation of diseased conditions, which antedate the alcohol craving, and are its predisposing and exciting causes not only; but complications—which retard, and sometimes even prevent a cure.

In the popular, and too often in the professional mind, alcohol is regarded as the cause and the root of the whole evil of inebriety. We desire to assert that inebriety is frequently dependent upon causes with which alcohol has nothing to do. There is a neurotic craving—it may be congenital, it may be developed as the result of disease or accident. This craving demands the various forms of narcotic stimulants, those that first excite, then produce narcosis more or less complete. Alcohol fulfils this condition, is easily accessible, reasonably inexpensive, and is the one drug that meets a morbid craving that seems to be almost universal. But what about the origin of this craving, this abnormal desire for alcohol or other drugs.

We do not fail to recognize the deteriorating effects of alcohol manifested principally, at least, more pronouncedly upon the nervous system as seen in the various forms of insanity, and the various neuroses, neuritis, epilepsy, alcoholic paralysis. We also note the degenerative effects of alcohol on lung, liver, kidney or other organs and tissues of the body; or as a special poison in the same sense that lead, arsenic and tobacco produce their effects.

But beyond and back of the direct, deleterious effects of alcohol, functional or organic, upon the nervous system, or its alterative effect on tissue, or its direct poisonous effects, as far as alcohol may be regarded as a factor in the production of inebriety, we believe that we may practically exclude it from consideration as a prime factor, certainly the most important factor in the ætiology of inebriety.

We believe that the great majority of inebriates become so from necessity, not from choice, that there is a "vis a tergo" of heredity, environment and disease, that produces physical degeneracy and pushes them over and plunges them into inebriety.

With some of the various predisposing and exciting causes of inebriety we are reasonably familiar; these by their direct or reflex influence upon the cerebro-spinal axis produce or lead to habits of involuntary drunkenness or inebriety. The patient with fever craves and may drink water freely, excessively and injuriously. The diabetic is an aqua-maniac in a certain sense, but in neither case do we recognize the aqua-mania or water craving as the disease, but rather as proceeding from certain abnormal conditions which we readily recognize. So the liquor thirst is the result of morbid conditions that produce an abnormal desire, which alcohol seems, temporarily at least, to satisfy.

Whether there are any definite lesions of the nervous system which produce dipsomania as other well-defined lesions of the nervous system have produced definite well-known symptoms, we are not prepared to say, but classify dipsomania with erotomania, kleptomania, pyromania, or other forms of periodical and impulsive insanity, which are marked by nerve storms or crises, which like tidal waves come suddenly, overwhelm the individual and plunge him into characteristic forms of dissipation, violence or crime.

The excessive use of alcohol, while it is oftentimes the cause of various diseases of the nervous system, and also a frequent cause of insanity, is also the precursor or initiatory symptom of certain diseases of the nervous system and also of insanity.

The paretic will crave and use alcohol in the earlier stages of his malady. The victim of nervous syphilis is addicted to it, more especially in the later stages when the nervous system becomes involved; about one in six of the several thousand inebriates that have passed under our observation at the Fort Hamilton institution were so affected.

I have reason to believe that many did not use alcohol in excess until the nervous symptoms of syphilis were developed. Any depressing, exhausting, or painful disease may produce the alcoholic craving, alcohol being sought for its stimulating properties. The neurasthenic craves alcohol, and it temporarily relieves the "nerve exhaustion" so common amongst the great army of neurotics. Alcohol, moreover, is second only to opium, ether, or chloroform as an anæsthetic, indeed, has been used as a substitute for the latter. Hence, persons find experimentally, that alcohol relieves pain, and its use is carried to a harmful extent, its deleterious effects produced and inebriety established. Indeed, there is an analogy here between the opium and the alcohol habit. While the former almost invariably has its starting point as a pain relieving agent, the latter has also, not infrequently, the relieving of pain as its beginning.

It is possible that a healthy individual with

good personal and family history, may use alcohol sociably or as a matter of custom, until the habit becomes firmly established. The alcohol breaks down the constitution, invades and degenerates the nervous system, and thus developes inebriety, because the alcoholic degenerations, or even functional disturbances of the nervous system are the very conditions under which inebriety is established. We say this is possible, but we assert again that behind the large majority of inebriates will be found a defective family or personal history, not only complicating but causing the inebriety; retarding, oftentimes preventing a cure.

It can be thus seen that inebriety is but a symptom—a flag of distress hung out by the nervous system. As some one has aptly said, "neuralgia is the cry of the diseased nerve," so the "drink craze" is the cry of the neurasthenic for a stimulant, of the pain tortured nerve for an anæesthetic, of the victim of insomnia for a hypnotic. It is but reasonable to infer then that the therapeutics of inebriety must be varied as the causes that underlie and call it forth. Not any patient that applies for relief to the physician needs a more careful examination than does the inebriate. You may rest assured that there is some underlying cause, probably several, that must be removed if we would restore the inebriate to his former habits of sobriety. If he is found suffering from the later manifestations of syphilis he will need special treatment for this condition, especially if the nervous system is involved; a painful stricture of the urethra may require division. Chronic malarial poisoning with its complicating disorder of stomach, liver and spleen, will demand special treatment. In a case on record the irritation of a tape-worm produced a tendency to the excessive use of alcohol, which tendency passed away when the worm was expelled.

In a word, the large majority of inebriates are diseased persons and that primarily and antecedent to their inebriety, which is appended to and aggravates their diseased condition.

Special diseases therefore require special treatment, irrespective of the inebriety, if we would cure the inebriate. In this connection we may ask are there any drugs that we can substitute for alcohol. Opium and the salts of morphia will do so in a marked degree, although cocaine, chloral and the bromides have been so used.

The use of opium or morphia is not uncommon among inebriates who desire to "leave off alcohol." The inebriate, as a rule, is a congenital neurotic. From birth almost, he reaches out for some drug that will gratify or meet his neurotic craving. He will "ring the changes" on all drugs that effect the nervous system; he will try all things (drugs) and hold fast to that which is bad. The alcohol and the opium habit to the inebriate are convertible habits, and the inebriate, like a pendulum, will swng from alcohol to opium; not infrequently the two habits are combined, as in the form of tinct. opii., constituting a mixed habit, in which the affects of both alcohol and opium have to be considered. Occasionally a case is presented in which morphia is used hypodermically, and the alcohol used in the usual manner. In cases where opium addiction is associated with the habitual use of alcohol, the opium habit is of paramount importance and the alcohol assumes a secondary place. The fact that opium can substitute alcohol is the keynote to many vaunted secret cures, in the so-called "narcotic treatment" for alcohol. It simply substitutes one habit for another and as long as the victim is taking the so-called remedy he is reasonably comfortable. But I admit if the "narcotic treatment" was carefully practised, in judicious hands it might, in conjunction with such other remedical measures as would best eradicate the primal causes of the inebriety, prove useful if not curative in cases of inebriety.

Are there any drugs that are specifically beneficial for the treatment of inebriety as such? We would state that drugs that act directly as a stimulant to the nervous system are of value. Strychnia is a type of this class of drugs and one of the best of its class. Luton, of Rheims, Belgium, was the first to point out its value in alcoholism. Then the Russians used it largely and it was known as the "Russian treatment," and finally, the Americans adopted its use in such cases.

Strychnia has proved serviceable as both abortive and curative in acute alcoholic delirium, as well as useful in the more chronic forms of alcoholism. It seems to be tolerated in such cases—in cases of alcoholic poisoning under normal conditions, we have no record of the value of strychnia as an antidote; interesting experiments might be made on the lower animals with a view of determining this point. Strychnia is an excellent cardiac tonic, and one of the best respiratory stimulants, and might be used in general medicine in cases in which alcohol is oftentimes prescribed.

Oxide of zinc, during the past twenty years, has been used with advantage in cases of chronic alcoholic intoxication. This drug was largely brought to the notice of the profession by Dr. W. Marcet, of London, who had an extensive hospital and dispensary practice, especially in diseases of the nervous system; and as he found zinc of value in various chronic disorders of the nervous system, he used it also in cases of chronic alcoholism. His observations, published in a small work entitled, "Chronic Alcoholic Intoxication," are an extremely valuable addition to the literature of alcoholism.

Quinine has been used more particularly in the later or convalescent period of the treatment of alcoholism. The so-called "Red Cinchona Cure'

for a time interested the public. Rational medicine does not recognize any special drug or specific remedy as a universal cure in inebriety, nor does clinical experience form any basis for such a claim. From the very nature of the case, such a remedy would be impossible. The ætiology of inebriety is dependant on such a variety of causes, and its environments and complications so numerous, that any one remedy could not fulfil all, or even meet the more important of these conditions. However valuable drugs may be to meet certain indications in the various conditions incident to inebriety, we believe that so far as the curative treatment of inebriety is concerned, drugs must assume a secondary place valuable as they may be in their respective spheres.

In the treatment of the alcoholic habit we place first : *Restraint, and seclusion in a special asylum for a definite period, and total abstinence during this period.* In a few words, concisely expressed, this statement includes the plan now adopted by the leading asylums of this country and of Europe for the recovery of the inebriate. It involves restraint (legal if need be), seclusion, a special institution, in which all the latest and best methods of dealing with the inebriate are procurable, a sufficient period in which to apply these measures and we need hardly add, a long period of total abstinence from all alcoholic liquors. We need hardly add that diet, rest, recreation, hygienic surroundings and the exhibition of appropriate drugs are all included in the above plan.

The causes of degeneration being removed, the factors of regeneration being brought into action, new formation of nerve, muscle and tissue must supplant degenerated tissue, if haply organic disease has not resulted in irreparable injury.

We have hinted at an hysterical element in the history of inebriety. The inebriate, whatever may be his condition, is largely influenced by his surroundings, hence, as almost in no other disease, must we recognize the value of psycho-therapeutical agencies hitherto if not altogether, used by the charlatan, but recently recognized and practised by leading neurologists, as of value in their specialty. In the light of such an hysterical element in the clinical history of inebriety, we can readily account for the apparent success of the so-called temperance movements that sweep over communities periodically and effect many apparent cures, or rather, in the language of the day, reformations. Such an element will also explain why after such a tidal wave of excitment, relapses take place oftentimes in large numbers, and the period of excitment is followed by a period of reaction.

The occurrence of relapses is readily accounted for by the fact that the stimulus of the period of excitement buoys up the inebriate for the time being, during which strong mental emotion is a powerful factor. He is keyed up, as it were, for the time, and sustained by a moral stimulus. When this is withdrawn, reaction, followed by corresponding depression, sets in, and the old method of stimulation is again imperatively demanded and yielded to. Why some inebriates go through such a period of excitement and do not relapse, and why others do, can be accounted for by the fact that the former are in a reasonable degree of physical health, and are not burdened, dragged down and handicapped, either by disease that is non-alcoholic, or that is the result of alcoholic degeneration. The inebriates so affected are not influenced, or if at all, only temporarily, by the so-called " temperance revivals " that appear and disappear with almost stated regularity in large and small communities, and we must add do good, but only in the channel indicated. It is also, operating through this hysterical feature of inebriety, that charlatanism may effect a temporary, possibly a permanent success in a certain class of cases.

A physician observed to me that he had visited many asylums for the cure of the inebriate, and that when the medical superintendents were men of strong will power and personal magnetism, as he expressed it, more cures were effected than when the reverse was true.

When the inebriety is due largely to neurasthenia, or in cases where the hysterical element largely preponderates, we believe psycho-therapeutical agencies, or even those that appeal to purely mental conditions, will be of service, but they will not cure a cirrhosed liver, lung, or kidney, or remove the physical causes upon which the inebriety may depend. In addition to those measures that appeal to the higher moral nature, there ought also to be combined such as meet with certain intelligent wants. To this end all reasonable amusements, entertainments, and especially such occupations as will interest the person and keep him busy, should be encouraged if not made compulsory. Incidently I may mention hypnotism as having been used especially by French physicians, with some benefit in cases of chronic alcoholism. I have no data to give and have not had any personal experience with it.

The therapeutics of inebriety is a new field as yet not fairly occupied, but we believe the only true road to successful treatment will be along the lines we have indicated. That is, a knowledge of the underlying causes and the use of such therapeutic agencies as will best remove these.

" Tolle Causam," the legend emblazoned on the standard of rational medicine, the watch-word of every true physician and surgeon, should guide the specialist and direct his methods in his endeavors to cure the inebriate—Lewis D. Mason, M.D., in *Brooklyn Med. Jour.*

## PHARMACOLOGY OF THE NITRITES AND NITRATES.

Although the first two Croonian Lectures, which dealt with the pharmacology of nitrites and nitrates, contained the results of a large amount of labor and of close experimental research, the third and fourth lectures are, we venture to think, more likely to be of value to busy practitioners, since they deal mainly with therapeutic considerations. Whilst laying due stress upon the various conditions in which the nitrites and nitrates may be of service, Professor Leech does not hestitate to indicate clearly their limitations, even though he thinks that they are too often discarded through excess of caution. In their favor he points to the small quantities necessary to influence the vascular system, to the relative absence of risk, unless employed with suicidal intent, and to the evanescent action. After refering to the broadness of the definition of angina pectoris adopted by Sir Richard Quain, he maintains that according to clinical experience this condition is always associated with a rise in tension, due to temporarily deceased calibre of either systemic or pulmonary vessels, and that the symptoms are the outcome of the heart proving unequal to the work it has to perform. The theory that the relief due to the administration of nitrites is the result of true analgesic action is not supported, the reduction of tension, as originally held by Dr. Lauder Brunton, being maintained as the true explanation. On account of their rapidity of action he prefers the nitrites of the fatty series, which can be employed by inhalation, but he considers that experience has shown that later attacks are of longer duration and that although inhalations are beneficial in earlier attacks they may frequently have to give place to remedies of more prolonged activity, such as nitro-glycerine. Nitrite of amyl, as is well known, is not a stable compound, and it may on that account fail when it is given in solution, although a disappointing result may sometimes be due to the short duration of its period of action or to special insusceptibility of the individual. On the other hand, Professor Leech records many cases in which it has been found expedient to largely exceed the pharmacopœial dose of the liquor trinitrini, and it is noteworthy that in his experience it is far safer to employ somewhat large doses of nitro-glycerine than to resort to injections of morphine. Ethyl nitrate has scarcely been sufficiently employed in angina pectoris to warrant any very definite conclusions, but it appears to exert a more powerful and more persistent influence in reducing tension than that possessed by ethyl nitrite. Although the nitrates of propyl, isobutyl and isoamyl are as effective as the nitrite of ethyl in lowering tension, they cause so much headache that they have not been employed medicinally. It must not be forgotten that the influence of nitrites and nitrates upon angina pectoris is palliative rather than curative, and that they should therefore be used concurrently with such remedies as iodide of potassium and arsenic.

Paroxysmal cardiac dyspnœa may be relieved by the action of the nitrites on the pulmonary system of vessels as well as on the systemic system, but the ordinary shortness of breath consequent on exertion, which is so frequently met with in simple valvular lesions of the heart, seems to be unaffected by them. On the other hand, Professor Leech is convinced that some good, and no harm, has resulted from the use of nitrites in cardiac failure or in syncope such as that occurring during the administration of chloroform. Of the value of this group in asthma and bronchitis there can be no doubt, but the *rationale* is not easy to explain. It is possible that asthma is not the result of simple bronchial spasm, but that there may also be, as has been suggested by Sir Andrew Clark, some hyperæmia or tumidity of the bronchial mucous membrane, and that the influence on the pulmonary vessels may also relieve the bronchial vessels. Whatever explanation is adopted, testimony is largely in favor of using nitrites in many of those cases which are ordinarily treated with ammonium carbonate and ether. In uræmic dyspnœa and in migraine the results are disappointing, but the converse holds goods for the treatment of forms of headache associated with high tension. The value of the series in tetanus, strychnine poisoning and epilepsy is open to considerable doubt, notwithstanding the favorable statements which have previously been made. In the treatment of acute Bright's disease there is also great lack of certainty of the efficacy of the nitrites, although diuresis has appeared to be hastened by the administration of nitro-glycerine or sodium nitrite; headache and other discomforts have been relieved by them, and they certainly have the advantage of causing no ill-effects. Similar difficulties attend the estimation of the results in cases of large white kidney and in mixed forms of chronic nephritis, but in dyspnœa and cardiac failure of late stages of contracted kidney nitro-glycerine adds to comfort and perhaps tends to prolong life.

Amongst other practical points may be noted the remarks upon the official compounds. On account of the decomposition of nitro-glycerine in presence of any salt it is better to employ the tabellæ or else a simple dilution of the liquor trinitrini with distilled water. For subcutaneous injection, in the rare cases where inhalation of amyl nitrite fails, nitro-glycerine is better than sodium nitrite. The benefits of spiritus etheris nitrosi has frequently been challenged, even when the spirit has originally contained its proper

proportion of nitrite of ethyl, and this lack of appreciation appears to be largely the result of the rapid decomposition which occurs on mixture with water; hence the valuable recommendation that the dilution should be affected only at the time when the drug is required. It is curious, however, to learn that this decomposition is retarded or prevented when solutions of acetate or citrate of ammonium are mixed with the spirit of nitrous ether. This combination has so long found favor with practitioners that it is comforting to know that their faith was grounded, even though unconsciously, upon sound scientific foundations.

In the concluding portions of the last lecture Professor Leech examined the pharmacology of certain groups allied to the nitrites, such as the nitro group, the nitrosamines, the hyponitrites and the oximes, but his remarks and experiments upon these points have far greater interest for the pharmacologist than for the bulk of the profession. Some of these groups are too nauseous for therapeutic work and others have exhibited marked toxic properties, and upon the whole we feel that they have been investigated rather with a view to throw light upon the method of action of older and simpler compounds than for the sake of perhaps adding to the list of new remedies. On these grounds, therefore, we refrain from summarising the results obtained by Professor Leech and content ourselves with noting that he has found that the nitro-compounds of the fatty series—nitro-methane, nitro-ethane, etc.—lower tension for a long time, although not very markedly. From all that has been said it will be gathered that in these lectures Professor Leech has presented a very ample vindication of the value of pharmacological research. Experiments upon the behaviour of the different groups upon muscle have afforded indications which have not only encouraged or discouraged therapeutic investigations, but have also given rise to very numerous practical observations upon the proper methods of prescribing and employing either the nitrites or their allied compounds.—*Ed. Lancet.*

## OBSERVATIONS ON THE IMMEDIATE TREATMENT OF NON-PREVENTABLE MISCARRIAGE.

To carry out the instructions of modern writers in the treatment of surgical cases antiseptically, one is forced to believe that they take it for granted that hospital conveniences are always at hand. We all know the confidence the hospital walls instil, and the absence of their environments is one of the causes that lead to atrophy of the enlarged cerebrum of the ex-house-surgeon, and make us all feel a certain want of confidence when thrown entirely upon our own resources in the treatment of these cases. Where an abortion is, through existing symptoms, determined to be unavoidable, the question of treatment at once presents itself. If it were but possible to establish therapeutical rules in such cases the skill and judgment that give preëminence to a doctor above his fellows would be wanting, and the professional ignoramus would stand on a par with the erudite physician.

The cause, condition of the parts, general state of the patient and her surroundings are all to be quickly and intelligently considered in solving the problem of treatment.

Have you not, as a rule, found upon being called to a case, two symptoms taking precedence over all other, and for the alleviation of which your aid was chiefly sought. I refer to pain and hæmorrhage. Pain, if very severe, for the time being at least, we overcome by internal or hypodermatic medication, and we at once address our efforts to the control of the more alarming of the two, the bleeding.

Placing your patient upon her side, you make a digital examination, and as a rule find the vagina filled with clots, the removal of which is generally followed by a more or less severe hæmorrhage. The point of the finger now reaches the internal os, and just within you feel the presenting fœtus, that is, if the product of conception has advanced that far, or if it has already been expelled the remaining membranes composed of the placenta and amnion or deciduæ and chorion, if the abortive effort is made before the third month. Placing the disengaged hand externally over the fundus of the uterus, you press it downward, and endeavor with the engaged finger to secure an idea of the relation of the parts, and if possible remove the presenting mass; failing in which, you have at your option three methods of procedure for immediate application, viz: Curettement, as a rule preliminary dilatation being necessary; vaginal tampon and the administration of ocytocics; ocytocics with application of external pad and T-bandage and fluid extract of ergot internally.

Treatment by curettement is now generally adopted by the progressive members of the profession, and yet I am in doubt as to its always being advisable. It is the exception when I resort to it, as I prefer to keep my patient under observation for a few days and judge of the necessity of its performance. I have so much respect for nature that I do not go to her aid with artificial assistance until she calls, and her voice is as easily distinguished as it is imperative in its tone. Have you not often wondered if the advocates of curettement have given due consideration to the lack of knowledge on the part of the general practitioner to its skillful performance. The use of the instrument, particularly the sharp one, requires practice, and I venture the assertion that seventy

per cent. of the physicians engaged in general practice do not possess the requisite skill. It is not the easiest thing in the world to distinguish between the uterine tissue proper and the pathological material so closely adherent. A blind scraping can, of course, be resorted to, yet a delicate and educated touch is necessary to recognize through the curette the uterine mucosa, the integrity of which, if destroyed, opens a way for the absorption of the putrefactive germs that are active within the decomposing membrane. Acute and chronic pelvic inflammatory deposits are often the cause of abortion, and you all know how slight the violence to the uterus that it is necessary to light up a general peritonitis in such cases, and unskilful manipulation is likely to extend such; furthermore, I would ask, is it justifiable in the practitioner coming from the bedside of infectious diseases, to expose his patient to the danger of contamination which the operation presents. Do not understand me as arguing against this most valuable operation but only against its indiscriminate performance by those legally but not practically qualified.

The old treatment of tamponing the vagina is by no means obsolete, and when properly performed has an individual value which no procedure can supplant. As often resorted to, by packing the vagina with bunches of cotton, it is both useless and dangerous—the cotton, by absorbing the serum, diminishes in size, and is easily washed out, or else lies loosely in the cavity; the hæmorrhage but little interfered with by its presence. I find many physicians make use of pieces of sponge, and provided they are fresh and sterilized as tampons, I can see no objection to their use, except their doubtful utility. Kite-tail tampons, made after the manner of Sims', and applied with the aid of his speculum, packing each successive piece around the cervix, and then packing the vagina, will prevent serious hæmorrhage. The necessity of their frequent removal to prevent infection, and the time and trouble it requires for their proper application, is a matter of importance to be taken into consideration by the physician if he intends to make use of them during the abortion, but to check hæmorrhage and cause expulsion of the uterine contents I hold them indispensable.

The hæmorrhage is most alarming in the earlier stages of the case, due of course to the commencing separation of the ovum and chorion, or at a later stage of the placenta. It is in this stage that the kite-tail tampon finds its greatest utility, acting not alone as a mechanical hæmostatic, but as an excitant to uterine contraction.

If the hæmorrhage is not severe, external pads of sterilized cotton, held in position by a T-bandage, will serve a good purpose in preventing anxiety on the part of the patient, and acting as a barrier to the admission of germs from without; they have the advantage of being easy of application by an ordinary attendant, and can be frequently removed for the sake of cleanliness.

I trust you will not consider it self-adulatory when I state that during thirteen years' practice, hospital and private, I have yet to lose a case under the following summary of its treatment, asking you to overlook the repetitions involved.

Morphine I administer for the double purpose of relieving pain and softening the cervical tissue; facilitating the dilatation of the os. If, upon examination, I find the membranes protruding, by a gentle, twisting motion, with two fingers, I attempt to remove them. Should I be prepared with forceps or vulsella, I would use either in preference to my fingers, owing to the better purchase obtainable. If the membranes do not present, yet are perceptible to the touch above the internal os, I attempt dilatation with my finger, and if successful, endeavor to sweep around and above the mass separating and delivering it. This accomplished, I irrigate the uterine cavity with a five per cent. solution of carbolic acid, or a 1-10000 solution of the biniodide of mercury. In cases where the membranes or placenta remain firmly attached beyond the reach of the finger, provided there is no fœtid discharge, showing putrefactive changes, I order vaginal douches of the same strength; apply kite-tail tampon; order twenty minim doses of the fluid extract of ergot, and leave my patient until my next visit, sometime within twenty-four hours. The use of ergot is prohibited in these cases by some teachers, and the experience of the members will be of interest. Does it not seem paradoxical to administer ergot and morphine at the same time for contrary effects? It is only seemingly so; the morphine blunts the sensibility of the nerve periphery, and lessens resistance. On revisiting my patient, and finding the temperature and pulse normal, discharge free from odor and hæmorrhage slight, I order the vaginal douche and ergot continued, but substitute the external pad and T-bandage for the kite-tail. This treatment I continue until the contents of the uterus are expelled or the temperature, pulse or character of the discharge demand curettement. Whenever, then, you get a history of a chill, with or without increase in pulse, fever, hæmorrhage or presence of a fœtid discharge, curette thoroughly, irrigating afterward with the biniodide or carbolic solution of the strength mentioned; following which, unless the cervical canal is well open, insert a strip of iodoform gauze, and you can then leave your patient, feeling that you conscientiously performed your duty. Further treatment will depend entirely upon the nature of the symptom, about which I have naught to say, as these random remarks were supposed to be confined to the requisite treatment but into which I injected digressions.—*Dr. J. C Evitt, in Brooklyn Med. Jour.*

## A CASE OF REMOVAL OF A PORTION OF THE SIGMOID FLEXURE.

I have ventured to publish the following case in order to show that simple measures in uniting bowel may possibly be attended by success and that the older method of operating, so severely condemned by the advocates of the newest gut plate or bobbin, is not of necessity followed by the death of the patient.

A married woman, aged forty-four, was sent to the London Hospital on November 27, 1891, by Mr. Holroyde, of Chatham. She had had excellent health until the previous June, when she had an attack of intestinal obstruction. This followed the eating of a considerable quantity of maize and was marked by colic, vomiting, constipation and distention of the abdomen. The patient was well again in fourteen days. A second but milder attack followed in August, 1892, and a third and much severer one in September. Between the attacks the bowels had responded readily to enemata and aperients. The symptoms of obstruction had passed away before the patient came to the hospital. On admission she was noted to be of healthy appearance and to be well nourished. The abdomen was soft, pendulous and distended. A very considerable quantity of fæcal matter was evidently lodged in the colon. There was no ascites; no tumor could be detected; a few coils of bowel became occasionally visible; there was no vomiting, and rectal and vaginal examination revealed nothing worthy of note. The treatment consisted of rest, daily massage of the abdomen, the daily use of enemata and aperients and the observance of a carefully selected diet. By these means the abdomen soon regained its normal size, an enormous quantity of fæcal matter was evacuated, the appetite was restored and the patient left the hospital in sixteen days, *i.e.*, on December 13th, expressing herself as feeling quite well. The diagnosis which I had caused to be entered in the notes was "stricture of the large intestine either in the descending colon or sigmoid flexure." No idea of operative interference at this stage was entertained by the patient. The absence of any of the usual causes of a simple stricture of the bowel led me to suppose that the stricture was due to epithelioma. Nothing more was seen or heard of the patient—who had moved from Mr. Holroyde's district—until Nov. 15, 1892, when she again entered the hospital. During the year which had elapsed the phenomena of the previous six months had been repeated and intensified. There had been increasing constipation, a more constant use of aperients, and more frequent and more severe obstructive attacks. Vomiting was common, the appetite was poor, the patient was haggard and anæmic, had wasted considerably and had become very weak. The abdomen was now greatly distended with ascitic fluid and measured forty-two inches at the level of the umbilicus. Much pain was complained of, and vomiting was frequent and troublesome. Aperients merely added to the patient's distress, and enemata produced very little effect upon the now evidently much distented intestine. Rest and opium gave the patient relief and served to prepare her for the operation, which was carried out on November 26th. There was at no time any albumen in the urine. The abdomen was opened through a median incision three inches in length. The ascitic fluid which escaped filled one full sized bucket. An annular epitheliomatous growth was found on the summit of the sigmoid flexure. It presented the usual simple ring, had formed no adhesions to adjacent parts, and had not extended beyond the bowel. The abdomen having been freed of all ascitic fluid, the effected loop of bowel was drawn out of the wound, and numerous sponges were wedged around it so as to make the operation in every respect extra-abdominal. The growth was found to involve the colon for one inch and a half of its extent; no enlarged glands were detected; the bowel above stricture was greatly hypertrophied and was so distended as to equal the adult forearm in circumference. The gut below the stricture was thin, empty and contracted. The colon above and below the part to be excised was clamped by the fingers of my house surgeon, Mr. Speechly. Seven inches of the sigmoid flexure were then cut away with scissors. The contents of this segment were received upon a special sponge. The interior of the bowel was cleansed. A V-shaped portion of the mesocolon was excised with the bowel. This gap in the sigmoid mesentery was at once closed by two sutures of No. 2 silk. The next step was to partly close the divided end of the greatly distended upper segment until the part left patent should correspond to the lumen of the collapsed bowel below. This was done by means of a continuous suture of the mucous membrane, followed by an outer line of Lembert's suture. For each suture No. 1 silk braid was employed, a milliner's needle being used for the continuous suture and a small, round Hagedorn's needle for the interrupted stitches. This upper segment of the bowel was as rigid as if made of leather. The two ends of the gut were now joined together in the same way, *i.e.*, by a continuous suture of the mucous membrane and an outer line of Lembert's suture. Whilst I was introducing the interrupted stitches to one end, my colleague, Mr. Openshaw was inserting them at the other. I should judge that about fifty sutures were employed. The assistant's fingers were now relaxed and the contents of the bowel allowed to pass through. It was apparent that the suture line was at all points water-tight. The sutured bowel was dropped back

into the abdomen, and the wound in the parietes was closed in the usual way. The operation occupied one hour and a quarter. The patient was sick three times after the operation, and during the convalescence an injection of morphia was given on three occasions only. The highest temperature reached was 101° on the evening of the second day. The bowels first acted on the third day, when five liquid motions were passed. Between the third and the eighth days the bowels acted twenty-one times. In these motions, which were for the most part liquid, fifteen cherry stones which were swallowed in the previous summer, were discovered. The parietal wound was first dressed on the tenth day, when it was found to be soundly healed and all the sutures were removed. On that day the patient was ordered fish. Subsequently to this a slough of mucous membrane containing one of the continuous sutures, was discovered in a motion. The patient's recovery was uninterrupted, but her discharge from the hospital was delayed by the tardy healing of a bed-sore which had formed before the operation. She returned to the country on January 18, 1893. She had been up and walking about for some time before this date, but the bed-sore had not quite healed when she returned home. The bowels were now acting regularly without aperients; the abdomen was flat; there were no ascites, no pain and no vomiting. The stricture exhibited the ordinary features of cylindrical epithelioma, and the narrowed passage would barely admit a No. 12 catheter.—Frederick Treves in *Lancet.*

## THE RIGID OS AS A COMPLICATION IN LABOR.

One of the most frequent complications which occurs to annoy the obstetrician, protract labor and exhaust the patience and endurance of the parturient, is a rigid and unyielding os.

This term is applied in a general way to a variety of conditions, materially differing from each others; but possessing this feature in common —the cervical tissues are unyielding, and the os undilatable.

This may depend upon non-development in the early primipara; upon fibrous degeneration in the old; upon cicatricial induration, consequent to previous lacerations, and upon pathological change, incident to carcinomatous disease.

But we frequently find a persistent rigidity where none of these conditions are present; wherein the lower uterine segment is apparently fully developed, and normal in character, thin and soft when quiescent, but upon the advent of each uterine contraction the encircling tissues spasmodically contract and become rigid and unyielding. More or less sensitiveness and irritability of the cervical tissues are present, and occasionally we find an acute hyperæsthetic sensitiveness of the whole vagina, sometimes accompanied by local heat and dryness. The patient is restless, nervous, irritable and depressed, is annoyed by examinations, suffers severely at each recurrence of uterine effort, aud persistently demands relief from the attendant.

Again, we may find the encircling tissues to be a thick muscular band, insensitive and rigid.

The patient may be in good health; presentation, position, the relative size of the child to the maternal pelvis, uterine contractions and personal effect may be all that could be desired, yet, whenever these rigid conditions persist labor will be correspondingly protracted, the patient subjected to increased and unnecessary pain and distress and liable to suffer from injurious sequelæ.

The most serious, but fortunately the least frequent result to be apprehended is rupture of the body of the uterus, allowing its contents to escape into the abdominal cavity. More frequently has there been a complete separation of the cervical rim, and quite frequently, or rather perhaps, the usual result is more or less laceration of the cervix, giving rise to hæmorrhage and laying the foundation for future pathological and gynecological conditions, which afford a fertile field for the specialist to cultivate, often to his own financial rather than to his patient's physical improvement. Unaided, after long continued and vigorous efforts, the minor tissues around the os may tire out and give way to slow dilatation; but more frequently the sudden rupture or laceration, previously noted, may occur, and labor be advanced towards completion. Then, too, long continued pressure against the cervical rim, especially in the absence of the protecting bag of waters, is liable to cause contusion with subsequent necrosis, which will add another factor towards future pathological complications, and trouble and ill health for the patient.

In cases wherein structural change has occurred from carcinomatous deposit, surgical interference is beyond doubt the proper method of relief; making lateral or bi-lateral incisions through the diseased tissues and keeping the patient sufficiently anæsthetized to prevent undue suffering until delivery is accomplished. Incision is also proper in cases of non-development, and in fibroid degeneration after failure to obtain dilatation by milder means.

In cases of irritable, spasmodic or of muscular rigidity, various methods and remedies have been employed. Blood letting to faintness is an old remedy and often effective; but bleeding is not fashionable at the present day, and the average practitioner does not possess the necessary moral courage to revive the practice. The relaxing effect of the hot bath, recumbent or sitz, has been

used with benefit, but is often inconvenient or impossible to give in general practice. Ipecac, tartar emetic, lobelia, tobacco and other emetics have been given ad nauseum with more or less effect, but more often to the doctor's disappointment, and the patient's disgust.

Digital and instrumental dilatation has its advocates, but is objected to by those who live in mortal dread of any such interference, on the score of the danger from septic infection. Chloral hydrate is often used, but is perhaps of more value to relieve the excessive irritability and procure rest than to effect immediate dilatation, and the same may be said of opiates in their various forms.

Undoubtedly the most popular remedy of recent times is anæsthesia pushed to a degree of complete relaxation. It is often efficient, and as it relieves the patient from the agony, it is hailed with delight by the sufferer and ever after held as a boon of inestimable value. But anæsthesia will sometimes fail and organic disease or personal prejudice may preclude its use.

I have the pleasure to offer another remedy, not to my knowledge generally used by the profession for this purpose, viz., atropia used hypodermatically. So far as I am aware, it was first used for this purpose by the late Dr. A. Ady of West Liberty, Iowa; although belladonna, extract and ointment has been applied to the cervix for this purpose from time immemorial. Dr. Ady has used atropia for many years in his practice, and he states "that it will as certainly dilate the os, as it will the iris," and in the cases wherein I have used it, I can fully concur in the statement. I believe it to be the most prompt and efficient remedy we possess to inhibit the contractility of the circular fibers of the cervix, thereby favoring prompt dilatation and thus accelerating labor. 1-100 gr. will generally be sufficient. Its effects will be manifest in from fifteen to twenty minutes. Rarely will a second dose be necessary.

The only unpleasant symptom attending its use is the dryness of the mouth and fauces and dilatation of the pupils. Neither in Dr. Ady's experience or in my own has it seemed to favor hæmorrhage or interfered with postpartum contractility of the uterus or with lactation.

Possibly, delirious excitement may be caused by it in persons peculiarly susceptible to such an effect of the drug, but such cases must be extremely rare.

I therefore, briefly present this remedy to the profession that it may be given a thorough and satisfactory trial, and its true value be determined.—H. King, M.D., in *Jour. Am. Med. Assoc.*

---

Scrofula as well as tuberculosis is benefited by creosote, which Dr. Sommerbrodt administers to children in milk or wine in daily doses not exceeding fifteen minims.

## ON A CERTAIN LACK OF HUMOR IN PHYSICIANS.

Physicians may undoubtedly be pardoned for it, but they surely have a natural or acquired deficiency of the sense of humor. Their right to pardon comes from the tremendous seriousness of their daily work; they may not even smile at the unconscious jokes of their patients, except after they and their "guitars in their noses" have left the office. "It's awful to have the nerves, doctor," and it's awful likewise *not* to have 'em. Some years ago a medical humorist began the compilation of an encyclopedia of medical wit and humor, and solicited contributions from all physicians. The contributions came in huge packages, but they were neither witty nor humorous—they were simply—not to be printed. The would-be author-editor never smiled afterward. It was a sad case of pseudo-cyesis.

Another proof of this thesis has lately come to our notice. Remarking, with much despondency of heart, that physicians as well as "the vulgar herd" like to handle secret proprietary remedies, and believe in outrageous claims and certificates of impossible cures, a humorist spent considerable money in advertising in "reputable medical journals" a series of preparations, trade-marked and patented, of the most astonishing qualities and powers. Certificates from pompous magnates, with titles of surpassing length as tails to their names, were appended; and the whole affair was set forth with the customary effrontery in the remarkable scientific jargon of the professional advertisement-writer. The actual advertisements are before us as we write.

For the anti-vaccinationists and the aristocratic, "Jennerine" possessed a charm; it was of spontaneous production in a blooded cow of long pedigree, but for many generations had been carried through the human royal family of England, acquiring thereby great intensity and nobility. Transmission of the virus and inoculation could also be effected by telegraph "over many miles of wire."

Of "Pasteurine," the universal microbicide, the formula was published, though the name was trade-marked, and "other dealers are warned," etc. And this is the formula:

Nitrogen, one volume.

Carbonic acid gas, pure anhydrated, two volumes.

Permanganate of potash, two parts by weight.

Pure oxygen, without admixture, one volume.

Pure carbon in crystalline form, one part by weight.

"Consumptine" was guaranteed a sure cure for consumption. As regards Croupine, the physician required especial teaching and drilling in its application, to prevent the digestion of the membrane

of the patient's throat while being swallowed. Its price was $7.50 per ounce, "very reasonable in consideration of the results obtained." "Dyspepsine" and "Cancerine" were guaranteed of absolutely unfailing power. "Ostrichine" enabled one to eat mince pie and railroad sandwiches with impunity. ("We raise our own ostriches.")

"Brainerine" needed only its name to recommend it. "Brains are scarce just now," says the advertisement, "and for this reason our supply, for a few years, will be limited. Physicians requiring this article for their personal needs or those of their patients, will please apply with subscription at once."

And now for the promised proof of profesional lack of humor: To the address of the "Nineteenth Century Therapeutical Company," from every part of the United States, came thousands of serious letters from physicians—literally thousands—requesting samples, ordering supplies, and making inquiries as to the applicability of these remedies to ailments described in detail.—*Ed. Med. News.*

[We venture to assert that in no other country in the world could so huge a practical joke have been played upon the profession. We have always thought the laity of the United States the most credulous of any civilized country (witness the success of homœopathy), but now it would appear that a large portion of the profession is equally gullible.—Ed.].

## CHLOROBROM IN SEA-SICKNESS.

In the *Lancet* of June 24th, Dr. Ledingham contributes an interesting note on the use of chlorobrom in sea-sickness. My experience of this solution, derived from its systematic use during six trips across the Atlantic, has led me to entertain a similarly high opinion of its efficacy in this malady. There can be no doubt that, administered in the right way and assisted by a careful regulation of diet and exercise, it quickly restores the patient to health after the first outburst of retching and vomiting is over, and there is a probability that it will prove to be an absolute preventive of the onset of sea-sickness in a very large proportion of cases provided that due attention is paid to the stomach and bowels for a few days previously to sailing. The voyage across the Atlantic occupies so short a time nowadays that few even of those who know themselves to be bad sailors think it worth while to consult a physician, and, as a result, an opportunity of testing the prophylactic value of any drug rarely presents itself; but in one case of which I have notes the result could hardly have been more satisfactory.

A young married lady, who when voyaging had invariably suffered from utter prostration and sea-sickness, dreading the eight days' ordeal which she confidently anticipated, consulted her medical adviser in the hope of obtaining some measure of relief. The result was that she went on board in a condition of health, so far as concerned her bowels and stomach, to admit of chlorobrom having a fair chance of showing what value it possessed as a prophylactic. She continued to take it night and morning for the first three days in half-ounce doses, and during this time she felt in perfect health. On the fourth day she ceased even to be nervous, and no longer regarded herself as a patient. She gave up her medicine and freely indulged an excellent appetite. Unfortunately for her, but fortunately for the value of the case as a test one, the sea became rougher during the fifth night of the voyage. In the morning when called to see her I found her vomiting and retching violently. After her stomach was thoroughly emptied, a mustard leaf was placed on the epigastrium to allow chlorobrom to be retained, and half an ounce was given. She fell asleep and remained so for four hours. On awakening she felt well, and wished for something to eat. She was given some beef-tea, which her stomach rejected after she went on deck; but immediately after this took place the feeling of sickness entirely left her, and she remained, with the aid of chlorobrom in the evenings, perfectly well till the end of the trip.

It is rare indeed to find passengers so carefully prepared as this lady was. The condition of most of them, owing to pleasant meetings with their friends before sailing, is one in which the first acute attack of sea-sickness acts as a very whole some and beneficial emetic; but it is the secondary stage—the stage of headache, retching and prostration—which is most undesirable for the weak, and fraught with most discomfort to all because it is often prolonged, and it is just in this stage that chlorobrom is most useful. The testimony of an intelligent patient is most valuable in a case of this kind, and, if my memory serves me right, I have never given this solution to a saloon passenger without his speaking well of it to me afterwards. One gentleman, an Anglo-Indian, in delicate health and a martyr to sea-sickness told me that he would never travel by sea again without taking chlorobrom with him.—Dr. Robertson, in *Lancet.*

## WHY GROW OLD AT THIRTY?

It is quite true that a man's life is not necessarily measured by the years he has lived, but by the way in which he has spent them. Many an individual may be as young and active at seventy as another at twenty-five, and the length of life, his health, and his ability to enjoy green old age, depend in a great measure on what the surround-

ings have been in the earlier years of his life. The ability to die a centenarian is within the reach of many more than might be supposed if, all through life, by the powers of selection given, the surroundings of life are kept true to that purpose.

If we want to see good health in old age, we must look for it in the men who are noted for their physical and intellectual vigor, and these are men who have always taken active exercise, it matters little whether it be in felling the monarchs of the forest, brisk walking, or other physical exercise coupled with a large amount of brain work. If systematic in their work, they will enjoy the pleasures of life long after they have passed their threescore years and ten. Of such material are the men who control the destinies of nations, men who give indications of mental and bodily vigor that would shame half their age. The wiry frame will be vigorous when the obese and sedentary individual of the same age has drifted into senility and premature decay.

As we view the subject, very much indeed depends upon the trend of the individual in early life, when the timbers are being framed that are woven into the solid edifice of later years. As the twig is bent, so the tree is inclined. The physical defects in middle and later life are but the physical distortions of early ventilation of the rooms, the sanitary arrangements of youth. What a mighty and valiant army of men and women might be produced in the next generation, if the trainers understood the possibilities of the age and realized the responsibility of such a work! It matters very little whether you take a grain of wheat or an acorn, its proper development depends upon the judicious attention given it in its early existence. If properly attended, it becomes a strong plant or a sturdy oak. Just as sure as it is planted in congenial soil and properly attended to, it will grow luxuriantly. It is the same with a human being, and however weakly it may be as an infant, if it is properly nursed and cared for, the foundation is laid for a mature and sound constitution in later years. It is indeed a mooted question whether every individual born into the world has not an equal amount of vitality, and, with proper application, with perhaps few exceptions, can make a grand success of life. We grant that everyone may not be born with a strong and healthy constitution. There are certain constitutional defects hereditary in certain families which may influence the length of life; but all these weaknesses and idiosyncracies of inherited constitutional defects may be wonderfully improved, and even eventually eradicated, if in early life proper care in regard to exercise, food, fresh air, and those surroundings which tend to strengthen the system and improve the physical stamina, are made a part of the daily routine.

Every boy and girl should indulge in athletic exercise of some kind, so that the habit of taking exercise may become established, and this, once acquired, is seldom neglected even in later years. Even the weaker boys and girls, if led into the vigorous exercises of football, cricket, tennis, and other games of a like nature, will learn from the simple love of emulation to keep up their muscular and nervous strength, which is capital that will bring them a support in middle life and pleasure to a greater degree in old age.

We may inherit the scrofulous taint, and early fall victims, if not careful, to consumption, or we may inherit the gouty diathesis, and become subject to all the ills which this disease entails in the middle age and afterwards. We may inherit the tendency toward obesity, which may be a drawback to comfort in advancing life, and will undoubtedly tend to shorten existence.

The bearing of these tendencies healthwise should be understood early in life, and care taken to fortify the constitution; hence it is that individuals with these tendencies may be remarkably well all their lives, and the tendencies crop out in the third or fourth generations, if not careful.

Early school life is an important epoch in the history of the individual, and a parent will do well before sending his children to school to see that the school, and the diet and capabilities for gymnastics or outdoor exercise, are adequate. These things are of as much, if not more importance, than the knowledge of Greek, Latin, etc. There is every reason, while the intellectual faculties are being trained, that proper care should be taken of the body; in fact, a boy's mind cannot be stored with useful information and health be maintained at a standard to resist disease, if the brain is not fed by proper food, and the constitutional stamina kept up by exercise and fresh air.

It is indeed a melancholy circumstance to see a lad, unfortunately left with boundless wealth and a great name, beginning life at seventeen years of age and becoming a prematurely old man at twenty-four. There are few medical men of large experience who cannot recall numerous instances of men who have overdrawn their constitutional bank account before the age of twenty to such an extent that the balance can never be placed on the right side this side of the grave.—*Health Journal.*

Claustrophobia.—Dr. Harry Campbell, London, said that anything that interfered with the free movements of the limbs or with respiration was violently resented. If seriously threatened in either respect man was seized with panic, and made frantic efforts to secure perfect freedom of limbs and breathing. The craving for this twofold freedom and the fear which attended any threatened interference with it, must exist very low

down in the scale, and subserving, as they did, useful ends, must have come into being by the ordinary laws of organic evolution. Fear sometimes produces paralysis—a fact difficult of explanation, since such paralysis, far from being helpful in extremity, was generally the very reverse; but the particular fear under consideration generally provoked active, it might be even convulsive, movement. Once evolved, the instinct for freedom could not find satisfaction in mere physiological conditions. Claustrophobia, or fear of closed places, a disorder more common than was generally supposed, was an exaggeration of that fear normally excited by any inhibition of the movements of the limbs or the breathing. This might be expressed in another way by saying that anything which engendered a sense of captivity was highly repugnant to the individual. Not only did he resent having his limbs tied, or being placed in a tightly-fitting wet pack, but being held captive in any way, as when a limb or the head was caught between two bars; the sense of captivity thus engendered might culminate in the direst panic. A similar, though less intense, panic might be induced by difficulty in doffing some garment, such as a coat with tightly-fitting sleeves, or in getting off a boot, a skate, or even a finger ring; in all which cases there was the same sense of captivity. Sometimes a sense of suffocation might be excited in any of the above instances, but it was, of course, most pronounced when the breathing was actually interfered with. The claustrophobiac had a morbid fear of suffocation and of captivity. This statement expressed his condition in the most general psychological terms. To state simply that he feared closed places, was to take a far too narrow view of the case. He feared to be in a room with the door closed, above all with the door locked. He might even be uneasy if he feels he could not rapidly get out of the house if so inclined, insisting that the hall door should be kept unlocked. He might object to be inside a church or theatre, and if he ventures there will probably insist upon being near the door. He often objected to travelling in trains, and had an abject dread of tunnels. He disliked a crowd or narrow passages, and might even be fearful of walking down a street with high houses on either side. The craving for free space might be so imperious that he was not happy unless he was in the wide open country, with not even a tree by. This was the border-land of insanity. In any pronounced case of claustrophobia, a highly neurotic history, frequently one of insanity, would be found. The suddenness with which the panic arose in many of these cases was most remarkable. The claustrophobiac seldom complained to the physician of feeling fear when his limbs were hampered, because he seldom found himself in such predicaments. If he did, however, he was far more likely to be seized with panic than an ordinary individual. He delighted in wide open spaces because they suggested the very antithesis not merely of captivity, but also of suffocation. Thus a lady inclined to be claustrophobic took intense delight in surveying a broad expanse of hill and moorland, and she had suggested that Shakespeare understood this feeling since he makes Lear's wicked daughter say, "He is dearer than eyesight, space and liberty." It might seem that one of the words "space and liberty" were redundant; but the lady referred to was convinced that each had for the poet a very particular meaning, and that he himself must have experienced that glorious sense of being able to breathe freely which the prospect of a wide, open space inspired in her.—*Brit. Med. Jour.*

Localization of Early Phthisis to Apex of Lung.—Dr. Campbell, *Guy's Hospital Reports*, in discussing the question as to why phthisis usually begins in the apices in man, says that the chief reason is that in him the extreme apex is extra-thoracic and not intra-thoracic. It is therefore "under exactly opposite conditions, as regards pressure, to the rest of the lung; in inspiration the intra-thoracic lung is under a pressure less than that of the atmosphere, but the apex is subject to the atmospheric pressure which is communicated to it by the soft parts covering it. This is forced downward into the thoracic cavity, with the result that it becomes slightly compressed, and air is forced out of it; this air meets the incoming air from the trachea and large bronchi, and the pressure becomes equalized. The result of this is that on inspiration only a small quantity of oxygenating air reaches the apex. Again, on expiration, the pressure in the apex being that of the atmosphere, and hence less than that of the rest of the lung, air rich in carbon dioxide, but poor in oxygen, is forced into it. From the above it follows that the contents of the apex are under most unfavorable conditions for becoming aerated, and thus the vitality of its tissues is lessened and their resisting power lowered. Further, the same conditions which interfere with the elimination of carbon dioxide also operate to prevent secretions and excretions from finding their way out of the apices; and this retention, and the resulting decay and decomposition of waste products, must still further lessen the power of resistence of the tissues to the attacks of bacilli." He is further convinced of the truth of his theory by the study of the anatomy of the chest of monkeys, in whom, owing to the length of the first rib, and more especially to the backward direction of the clavicle, the entrance to the thorax is so blocked that it is impossible for the apex of the lung to rise out of the thoracic cavity, and in whom, though phthisis is common, the apices are,

as a rule, less affected. If this view is correct, it is evident that the contraction which takes place at the apex in phthisis is of the greatest value for the purpose of cure, for by its means the extra-thoracic portion may be drawn down so as eventually to become intra-thoracic. If it were possible to hasten this desirable result by exercising the extreme apex, it is probable that in cases of early phthisis cure would take place far more frequently than it does at present.—*American Lancet.*

NEURITIS OF INFECTIOUS AND TOXIC ORIGIN.—In illustration of the diversity of origin of peripheral neuritis, Baret, *Archives de Méd. et de Pharm. Milit.*, reports three interesting cases, in one of which the poison of enteric fever acted as the cause; in another, syphilitic poisoning; and in the third, alcohol. The first occurred in a man, twenty-seven years old, in whom upon recovery from an attack of enteric fever, complicated by myocarditis, great weakness was found to exist in the hands. Examination disclosed a condition of wasting, with impairment of tactile and thermal sensibility, with reaction of degeneration, extension of the proximal phalanges and contraction of the distal phalanges, and vaso-trophic changes in the peripheral distribution of of the ulnar nerves. Decided amelioration followed upon tonic treatment and rest.

The second case occurred in a young man convalescent from erysipelas, who gave an antecedent history of syphilitic infection. The symptoms simulated those of anterior poliomyelitis. There were present weakness, slight wasting, numbness, and tingling in the lower extremities, with analgesia of the soles of the feet and enfeeblement of the patellar tendon-reflexes. Pressure upon the muscles gave rise to a disagreeable sensation, while pressure upon the nerve-trunks caused severe pain. The muscular sense was preserved. In the upper extremities weakness and wasting were less marked, while paresthesia and anesthesia were more pronounced. There was also slight convulsive tremor of the fingers. Micturition and defecation were not deranged and there were no cerebral or ocular complications. The administration of strychnine and sulphurous baths was followed by no improvement. The patellar reflexes became entirely abolished and the muscular sense in the lower extremities totally lost. Treatment with mercurial inunctions and potassium iodide was now instituted, but was suspended upon the development of a left pleural effusion, for the relief of which puncture was several times performed. The general condition became quite poor; the legs became edematous; and it was found that thrombi had formed in the femoral arteries. Anti-syphilitic treatment was now resumed, and decided improvement was immediately noted in the local and general condition.

The third case occurred in a man, twenty-three years old, addicted to alcoholic excess, who presented symptoms suggestive of posterior spinal sclerosis. For a number of months it had been observed that fatigue was induced with undue readiness; the gait was awkward; lancinating pains appeared paroxysmally, particularly in the distribution of the sciatic nerves; at night there occurred cramps in the calves of the legs. There was, however, no girdle-sense and no visceral crises. Upon the left thigh and leg were circumscribed areas of analgesia, while upon the soles of the feet all forms of sensibility were impaired. The skin-reflexes were preserved. The patellar reflexes were exaggerated, but there was no ankle-clonus. There was a tendency to foot-drop. Gait and station were quite ataxic. Tremor was marked in the upper extremities. The shoulders and arms presented several disseminated areas of analgesia. Marked improvement supervened upon a milk diet, withholding alcohol, and the administration of large doses of iodide.—*Med. News.*

THE MINOR SYMPTOMS OF BRIGHT'S DISEASE (Dieluafoy).—The catalogue of symptoms left us by Bright has been very much extended since his time. There is a convulsive form of uræmia, an apopletic form, a delirious form, which resembles somewhat insanity. Some patients have even been sent to insane hospitals. There is also uræmic headache; uræmic dyspnœa, which takes all forms, from the simplest up to the severest attacks, simulating asthma and acute pulmonary œdema.

We are still governed by the ideas of Bright and Rayer, and when there is difficulty in diagnosis, we look for albumen in the urine as the deciding symptom. If none is found we reject the diagnosis of Bright's disease. But Lancereaux has shown that albumen is an unreliable sign, since there are cases of true Bright's disease unaccompanied by albuminuria. Dieulafoy says: "For some years I have been taking notes of cases and have at present sixty observations. In a quarter of these albuminuria was wanting during the stay of the patients in the hospital. In other cases persons have albumen in the urine, without being ill at all; and this fact makes albumen only a minor sign in the history and diagnosis of Bright's disease. How, then, should we make the diagnosis? I have sought for some time for a certain number of symptoms, to which I have given the name of "minor signs," which, taken collectively, permit the diagnosis to be made. An individual attacked by this slow intoxication may present:

1. Auditory difficulties, ringing in the ears and deafnesss. Mounier has sought to bring the vertigo of Meniere's disease into this category.

2. Numbness of the fingers or hand was noted forty-six times in the sixty cases.

3. Chilliness of legs and feet observed thirty-seven times in the sixty cases.

4. Pollakiuria is equally common.

5. Pruritus, likened to the sensation produced by a hair on the skin.

6. Epistaxis, especially in the morning and starting during sleep.

7. The sign of the (temporal) artery. The arterial system is tense, the vessels are bent and hard (without there being arterio-sclerosis) and this is shown especially well by the temporal artery. Each of these signs separately has little value; but collectively are enough to form the diagnosis. These minor symptoms appear to be connected with three morbid conditions: Rheumatism or gout, syphilis and chlorosis.—*La France Medicale—Times and Reg.*

THE ETHICS OF SUICIDE.—In spite of some pessimistic utterances in its favor, suicide still ranks with us as an indictable offence. This is but natural if we allow that self-destruction is incompatible either with mental or moral health. We are all familiar with the verdict so often heard at the close of a coroner's inquiry, "Committed suicide whilst of unsound mind.' Without doubt it describes with more or less accuracy every case of the kind. It certainly applies to such a case as that of a young practitioner who lately died from taken an overdose of morphia. It does not however, as a rule, exclude the operation of moral forces, and there is abundant proof to show that these are active at every stage in the pitiful transaction. We would claim for them a predominating influence. The mind which connives at self-destruction is at variance with the most elementary instint of self-preservation, a sentiment which is fully justified both by the proved possibility of present existence and by our ignorance as to future events. It is therefore unhealthy. It is in an even greater degree immoral, since possessing within itself a sense of duty and of relationship with others in their lives, labors and attainments, it ignores all for the sake of a present gain of personal relief. No one can rid himself of this relationship without at the same time casting on others the burden of responsibility which he abandons. We cannot, therefore, bring ourselves to agree with some who go the length of excusing suicide and even of advocating the creation of facilities for its accomplishment. Of more practical importance, as bearing upon the causes and course of this essentially morbid condition, is a brief analysis of 100 cases lately published in the pages of a contemporary. From this article we gather amongst other interesting details that, according to the evidence obtained, men destroy themselves with much greater readiness than women. The proportion is about two to one. Middle age is the period at which the tendency is most marked, and the middle-class holds the same position in the social scale. Mental influence is more active than any physical inducement, and pecuniary and related social difficulties fill a larger space than any other group of motives. As regards the question of treatment it is to our minds perfectly clear that the evil of suicide is not to be disguised by resorting to a lethal chamber or other permissive method, however plausible its description, but by cherishing a simpler, stronger and more impersonal sense of human fellowship and mutual duty. In the presence of innumerable evidences of providential desgin we would equally impress the necessity of remembering that the divine order still prevails, and still for each and all men furthers, though sometimes obscurely, their best interests. Let us not forget physical considerations. Mental depression is often the outcome of mere bodily illness, especially of fatigue and of indigestion. Some judgment in treating these, some consideration on the part of employers of labor, may disperse a thundercloud of despair which otherwise would settle in perpetual gloom. We have heard enough, at all events, of the modern pessimism with its latest miserable canon of self-destruction. We would substitute for it the plain, old-fashioned but eminently wholesome and courageous precept, "Never say die."—*Lancet.*

ABUSE OF MEDICAL CHARITIES.—Here in London after about a quarter of a century of agitation, and after innumerable confessions of gross abuse by the most competent authorities on the subject, no attempt whatever is being made to formulate any plan by which that abuse may be checked, and if any reflection is made in the journals on hospitals where out-patients are received out of the streets in thousands without any pretence of inquiry, the staff of those hospitals rush to the defence of the system.

Meanwhile, the numbers of out-patients are growing, and so is the pecuniary embarrassment of the hospitals. Mr. Yerbury, a member of the Distribution Committee of the Saturday Fund, writes to the *Times* of July 14th to make an earnest appeal for the Fund, and points out in his letter that the "number of new out-patients" is 1,132,433, carefully distinguishing between that number and the number of visits. He also points out that "one noble institution has been compelled to close 140 beds, and another 30 for want of funds."

Now, no one can regret more than we do the embarrassments of our hospitals; nowhere does any effort to mitigate them obtain more cordial support than in this *Journal.* So we have no fear of being charged with being an enemy to the hospitals if we tell them the truth. And it is the

truth admitted by their warmest friends and supporters that the out-patient system is a blot upon their fame, and that some united effort for its amendment will soon be insisted on by public opinion. That amendment must take the form of regulations to exclude both persons able to pay for advice and also persons unlikely to derive benefit from hospital treatment, and whose ailments require home treatment and supervision. We had looked with hope to the inquiry recently instituted by the Lords' Committee to lay the foundation of that reform. It seems only too likely that all such hopes will be frustrated, and that the reform must spring from the public and from the profession. But these must act through some agency.—*The British Medical Journal.*

Syphilitic Spinal Paralysis.—Erb. *Neurolog-Centralb* maintains that the spinal manifestations in subjects of syphilis, possess sufficiently marked features to make a special morbid entity, though though having much resemblance to the spastic paralysis so far as the various movements of the legs are concerned, and the exaggeration of the tenden reflexes. Muscular spasms are, however, relatively little marked while bladder function is almost always affected.

The symptoms are of slow development and progress, and even years may pass before they are all present. They consist in paræsthesia, transient pains, fatigue easily brought on, stiffness and weakness of the legs, and paralysis of the bladder; the latter existing as a sole symptom, perhaps for months or even years. Spasmodic paralysis of the legs may follow, but rarely complete paraplegia. The patient moves about slowly, the legs are stiff and progression is painful as though there were a combination of intense muscular spasm along with the paresis. Sexual power is diminished in most cases. There is a decided tendency to improve, especially under energetic treatment. The author maintains that in bearing this symptom in mind he has been enabled to diagnosticate the condition before enquiring into the existence of previous syphilis, and the distinction is readily made from the other spinal affections, tabes, sclerosis en plaques, compression myelitis and syringomyelia. From spasmodic tabes, it is recognized by the existence of troubles of sensation, and deranged bladder formation, by the slight intendency of the muscular spasm, and by the difference in evolution.

It has often been confounded with transverse dorsal myelitis, but in syphilitis paraplegia is only exceptionally complete and that usually only for a short time.

In thirteen out of the twenty-two cases observed, the condition appeared within three years from infection. The lesions apparently occupy the dorsal segment and only involve a portion of the thickness of the cord; the posterior half of the lateral columns, the posterior columns, the posterior part of the gray substance.

Attention is called to the following debatable points:

1. Do a sufficient number of cases of dorsal myelitis of specific origin exist to make a special form of myelitis? The author believes that from thirty-five to forty per cent. of chronic cases are of syphilitic origin.

2. Has this form clinical characteristics of its own?

3. Among the many forms of syphilitic affections of the spinal marrow is this one sufficiently represented to separate it from the complex cases where several forms are associated in the same subject? And finally does the symptom-complex always correspond to an anatomical lesion.

From the large number of cases observed by author he feels justified in creating a form of spinal paralysis purely syphilitic, but further study of the question seems called for.—*Med. Rev.*

Action of Guaiacol and Iodoform on the Chemical Poisons of Tuberculosis.—Up to the present time nearly all researches made with regard to the action of chemical substances in tuberculosis have been directed to studying their action on the living bacilli, regarding these as the first elements necessary to attack, and leaving aside any pathological influence of the toxines secreted by the bacilli. They aimed, in fact, at finding a drug which, while not toxic to the human body, was yet fatal to the microbe. Venturi has approached the subject from a different point of view, and has tried to combat by means of drugs the action of the sterilized chemical products of the tubercle bacillus. He found that there was no constant appreciable difference between the duration of life and lesions of animals inoculated with the sterile cultures together with the drug, and those of control animals inoculated with the toxin only. Iodoform and guaiacol therefore exercised no retarding influence, whether injected separately or along with the toxin, nor even if the toxin had been mixed with either of them for a considerable time before being injected. With regard to the use of the drugs by the stomach, the author considers that they do more harm than good by deranging the digestive processes. Venturi believes that as iodoform exhibits no destructive action on the toxins of tuberculosis, and as its destructive action, if it really exists, on the micro-organisms is due to the liberation of iodine, it would be wiser to substitute some less noxious substance, such as one of the alkaline iodides, for iodoform, which is itself capable of doing considerable injury to the patient. Good feeding, good hygienic conditions, and a good climate, are in his opinion far more valuable than any remedial

agents hitherto discovered. — *Brit. Med. Jour.*, Aug. 26th, 1893.

Uncontrollable Vomiting in Pregnancy.— Blanc deplores the difficulties which the practitioner encounters when he has charge of a patient with uncontrollable vomiting during pregnancy. If performed too early, induced labor involves the destruction of the fœtus that might have lived. If too late, after great emaciation, syncope and delirium have set in, the patient's death may be deferred for a very short time, or even hastened. The uterus cannot be made to contract in these advanced cases. Hence it must be emptied of its contents. Blanc attended a lady in her third pregnancy. The first had been normal, the second ended by spontaneous abortion at the fourth month, after uncontrollable vomiting. On this occasion the patient had reached the third month of pregnancy. The vomiting was very severe, there was fever, and the least movement produced faintness. Cerium, cocaine, ice, champagne, and chloroform water had all proved unavailing. A laminaria tent was introduced; it set up contractions, which soon passed away. Next day another tent was passed into the uterus. A day later, a long strip of iodoform gauze was pressed into the uterine cavity. At the end of twenty-four hours no contractions had occurred, and the patient was delirious. She was placed under ether; then the uterine cavity was scraped thoroughly, and the fœtus, placenta, and membranes removed by means of the curette. A plug of iodoform gauze was packed in the uterus after irrigation with sublimate. Subcutaneous injections of ether and caffeine were then given. By the next morning the delirium had passed away, and the patient could take a few cups of cold milk and soup, and a little champagne. At the end of a fortnight she was restored to perfect health.— *Brit. Med. Jour.*

The Quantity of Lochia after Labor.—Dr. Giles has endeavored to solve this problem. The method employed was to weigh the absorbent pads before and after application, and to estimate the amount of discharge, *debris*, and clots coming away with the douches. The conclusions derived from observations on sixty cases are as follows: 1. The average normal quantity of lochia is about 10½ ounces. 2. The duration of the discharge is on the average nine or ten days. 3. The degree of parity does not influence the quantity. 4. Non-suckling does not increase the discharge. 5. The quantity is generally greater in younger women up to the age of twenty-five. 6. The weight of the child has a slight, and that of the placenta a well-marked, influence, the quantity increasing the weight of the placenta. 7. The quantity increases with the amount of hæmorrhage at the time of labor. 8. The lochia are more abundant in the case of those who habitually menstruate profusely. 9. The quantity is generally greater in the case of women of darker complexion. The difference between Gassner's results, viz., 52¼ oz., and the author's, viz., 10½ oz., was attributed mainly to the use of antiseptics, partly to the effect of astringent douching. The author believed that the three discharges—during menstruation, during labor, and during the puerperium—vary simultaneously, the quantity depending on predisposing conditions, of which the amount of pigmentation is generally an index, and that all three discharges are habitually greater in darker women. — *St. Louis Med. and Surg. Jour.*

On the Care and Medical Treatment of Alcoholism.—Dr. Mann recommends the following as useful in the treatment of dipsomania as a good tonic and sedative, tending to antagonize degenerative changes in the brain, having a good effect on the stomach, and as aiming to combat the effects of alcohol on the structures of the body:

℞—Quinine sulph.,
Zinc. oxidi . . . . . āā gr. ij.
Strychninæ sulphat. . . . . gr. $\frac{1}{40}$
Arsenic . . . . . gr. $\frac{1}{100}$
Capsici . . . . . gr. ij.
M.—Ft. pil. No. 1.
Sig.—One pill t.i.d.

Together with this pill, Dr. Mann uses in his private hospital for sixteen days after admission the following, hypodermatically:

℞—Strych. nitrat. . . . . gr. j.
Aquæ dest. . . . . ʒ ss.
Mt.
Sig.—Eight minims daily for eight days.
Four minims daily for another eight days.

To quiet the morning nausea of alcoholics, and before meals, two or three drops of wine of ipecac on the tongue. After meals ten drops of dilute muriatic acid. The patient is kept in bed for the first few days, and fed on milk heated almost to boiling point. Valentine's meat juice may also be given. Hydrotherapy and electrotherapy are employed to induce sleep. A sedative is administered for a few nights. If the patient is very much excited and on the borderland of delirium tremens, the following is useful for two or three nights:

℞—Hyoscin. hydrobrom. . . . . gr. j.
Aquæ dest. . . . . ʒ ix.
Spts. vini rect. . . . . ʒ j.
℔ Ft. hypodermatic sol.
Sig.—5 to 10 minims pro re nata.

The diet should consist of milk, eggs, oysters, meats, fish, buttermilk, and koumiss, plus a

minimum amount of cereals. Vegetables are taken very sparingly, the idea being to rely on diet which requires the least vital force and oxygen to digest, assimilate, and appropriate it, and to have ingested into the body such material as will, when brought under the influence of oxidation, yield the most force and energy.—Dr. E. C. Mann, in *Brooklyn Med. Jour.*

Ninety Observations on Acute Articular Rheumatism in Childhood.—This affection is less common among children than among adults. The influence of the seasons does not appear very clearly, but heredity plays an important part in its production. Two pecularities are noted with regard to localization: first, as in adults, its rarity in the hip joint; second, the frequency in children, as compared with adults, of manifestations in the vertebral column. General phenomena are commonly but slightly marked. This is perhaps due to their relation to the number and intensity of joint-affections. The thermometric curve, as with adults, is irregular, and bears a relation to the exacerbations and extensions of the lesions. Sweating and sudamina are observed; also hemorrhages, and particularly nasal hemorrhages. The urine presents no differences from that of adults. Anæmia is an almost inevitable consequence of the rheumatism of children, as of that of adults. It surpasses that of any other disease, with the possible exception of malaria, and it leads not only to the pallor, but to souffles in the neighborhood of the pulmonary artery and of the vessels of the neck.

Much the most frequent complication is endocarditis. It is very difficult to determine the precise moment when endocarditis begins, for it can only be diagnosticated when the souffle appears. It persisted in the great majority of cases until they were able to be out; nevertheless, in eight cases it became materially lessened, and in five it disappeared. In one of the last resolution took place very slowly, and it was not until eight months that the child had regained its former state. Therefore one should not he in a hurry to make the diagnosis of a permanent lesion. Pleurisy must be sighted among other complications. When it occurred it was much more often in the beginning than in the course of the disease. Six patients presented a more or less abundant eruption.—*International Med. Mag.*

Bromoform in Whooping Cough. — Earle, *Chicago Medical Recorder*, has collected some data on the treatment of pertussis by bromoform. He gave it in 50 cases, and found the paroxysms invariably diminished in frequency within three days. The action resembled that of belladonna. A large dose gives rise to dizzines. Fisher reports 51 cases, Burton Fanning 30, Duncan 5, Stepp 100, Newman 25, Schippers 250, and Kerley three, in which unvarying success followed its use. Ullman concludes that bromoform is not superior to other remedies. Nauwelaers reports a fatal case from a small dose, the exact size not being intelligibly stated. Earle's formula is:

| | | |
|---|---|---|
| ℞—Bromoformi, | . . . . | gtt. viij. |
| Tr. oppii camph., | . . . . | ʒ j. |
| Syr. acaciæ, | . . . . . | ʒ iv. |
| Aq. anisi, | . . . . . | |
| Ac. laurocerasi, | . āā q. s. ad | ʒ j.—M. |

Shake well. Sig. — Half to one teaspoonful four times a day to a child one year old.—*Times and Reg.*

Treatment of Infantile Convulsions.—M. Jules Simon recommends the following line of treatment of infantile convulsions: 1. Empty the digestive tract by an enema and by tickling the fauces to promote vomiting. 2. If the attack continues, administer ether or chloroform on a handkerchief. 3. Administer by the mouth, or if necessary by enemata, repeated doses of the following mixture: Chloral hydrate, fifteen grains; bromide of potassium, fifteen grains; syrup of codeia, ten drops; tincture of musk, ten drops; tincture of aconite, ten drops; orange-flower, three ounces and a half—this quantity to suffice for twenty-four hours. 4. When the attack is very grave give a warm bath and apply a small blister to the back of the neck or the epigastrium, leaving it on for three hours. Antiseptic precautions should be observed and a poultice subsequently applied.—*Times and Reg.*

Curetting the Puerperal Uterus.—From an experience of sixteen cases, Rivière deduces the following propositions. Curetting is indicated:

1. After abortion, where hæmorrhage persists due to the retention of secundines.

2. After abortion, as after accouchement at term, when repeated uterine injections are not able to remove the phenomena of local and general infection.

3. Early curetting is legitimate because, while late action may suppress the results of local accidents, it cannot prevent the patient from succumbing to the march of general infection.

4. The only danger from procedure is perforation. Hence a ring curette should be used, and that, too, with the greatest gentleness.

5. Chloroform anæsthesia is generally unnecessary.

6. In the author's practice, success has resulted in thirteen ont of sixteen trials.—*Gaz. Med. de Straebourg.*

Paris World's Fair, 1889.—There is no other exhibit of the class in the United States section to rival that of Wm. R. Warner & Co. From the Philadelphia merchant comes an exhibit which the native pharmacists can look at with both admiration and wonderment. This display is enough to make any Frenchman curious, and their arrangement such as to be above deprecatory criticism; and those Frenchmen there could not be a people with better taste for the proper and harmonious exhibition of products. A glance through their own magnificent section of pharmacy will verify this. Readers would find superfluous a description in detail of the Messrs. Warner's essentially fine installation covering all their soluble sugar-coated pills, salts, etc. Suffice it is to remark that at the Paris Universelle their exhibition is thoroughly representative, comprises all the makers' fabrications, and is decidely an honor to the concern. —*Pharamaceutical Record.*

Rest in Bed.—Dr. Guy Hinsdale, in the course of a lecture on nursing in nervous disease, particularly hysteria, describes the advantages to be derived from ordering absolute rest in bed: It will seem somewhat strange to those who have been accustomed to go about the house, although in a languid manner. It will be far better also for invalids who recline on sofas, and yet have not cared to relinquish all opportunity of seeing friends, and hearing of the outer world. By going ing to bed in earnest, and under no pretext walking about the room, not even sitting up, and in some cases not even feeding herself, the patient realizes that a new era has begun in her life history. The result is that she appreciates highly the opportunity to feed herself when the permission is given, perhaps after a fortnight or more of denial. At the end of a month or so she sits up a few minutes each day; the time is lightened; at the end of the two months, perhaps, she is allowed to sit in a chair. Every added privilege is appreciated as never before; liberty never seemed such a boon. It is like the hunger of a convalescent from typhoid fever. The whole aim in life, if you have maintained the case successfully, is now to occupy a sphere that before seemed impossible to attain, and with timely assurance you will have the satisfaction of seeing the patient launched upon the world made over anew. These are matters of actual experience.—*Boston Med. and Surg. Jour.*

Massage in Muscular Rheumatism.—Graham, *Amer. Jour. Med. Science*, referring to lumbago, points out that this may arise from cold, strain, fatigue or rheumatism. Its pathology is probably coagulation of the semi-fluid contractile muscular substance, and adhesion of muscular fibrils, so that motion gives rise to partial, irregular and painful contractions. Retention of waste products occurs, the worse of these being uric acid. Recent cases of muscular rheumatism are almost invariably cured by a few massages. The same result may be brought about by rest, warmth, electricity, or the use of such drugs as salicylate of soda, though not so rapidly. Graham claims for massage five different actions, namely, mechanical, thermal, electrical, nervous, and chemical, and suggests that when a case of apparent muscular rheumatism not only does not yield but does not remain improved after a few massages, the probability is that the case is one of neuritis affecting the nerve fibres that supply the impaired muscles. This probability would be strengthened when the pain is uniform, affecting the same muscles on both sides, when it is worse at night, when at rest and warm in bed, and better when up and moving about; whereas muscular rheumatism is aggravated by motion and relieved by rest and warmth. Massage may thus be used as a means of diagnosis between muscular rheumatism and neuritis.

Things Worth Remembering.—It is authoritatively stated that headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

Ordinarily one woman in eight is sterile, but among woman who have fibroids one in three is sterile. (Parvin.)

In facial erysipelas, where you cannot conveniently apply ordinary means, paint the part with a ten per cent. iodoform collodion. (Prof. Gross.)

In posterior displacements of the uterus, always replace the organ before introducing a pessary; the frequent failure of its use is generally due to this cause. (Parvin.)

Where there is a collection of foreign matter, as pus, in the antrum of Higmore, extract the first molar tooth (or more, if necessary), and drain the cavity in this way. (Sajous.)

For specific vaginitis, Prof. Parvin ordered mucilaginous injections and warm hip-baths in the acute stage, followed by injections of 1 : 100 corrosive solutions and tampons of boracic acid and glycerine.

Gelsemium will often do more good in irritable bladder than any other remedy. It is especially adapted to those women of hysterical type troubled by irritability at the neck of the bladder, calling for constant urination.

Without exception, the first symptom of pregnancy is an increased frequency of the desire to micturate.

Rhus aromatica, or the fragrant sumach, which grows all through the Northern States, is strongly recommended for incontinence of urine in atonic states of the bladder. From ten to fifteen drops of the tincture are given three times a day.

Salicylic acid is highly recommended as an application to ring worm. It may be used as an oint-

ment, but is much better as a saturated solution in collodion. One application is often all that is necessary to effect a cure, but it may be repeated if necessary. The pain caused is not usually severe.

Boro-tartrate of potassium is the first remedy for calculus in pelvis of kidney; a weak solution must be used, and for a long time, a strong being detrimental. (Bartholow.)

Drop into urine in a test tube a few drops of the tincture of guaiac, heat it about 100°, and if it turns pale blue, pus is present in the urine.

Houghton, of Dublin, says that two hours of severe mental labor abstract as much vital strength from the system as a whole day of physical labor.

Unna treats "red nose" with zinc-and-sulphur ointment externally and ichthyol internally.—*Mass. Med. Jour.*

Phenic Acid in Rectal Catarrh.—A Russian doctor, M Strizovére, has treated three cases of inveterate chronic catarrh of the rectum with success by means of rectal injections of a solution of carbolic acid ten drops in two tumblerfuls of water twice daily, each injection being retained from six to ten minutes. The first case was that of a patient with a diarrhœa of nine months' standing which had resisted all methods of cure; cause unknown. Digital exploration of rectum very painful, rectal mucous membrane soft and velvety. The stools, numbering three or four a day, had a gelatinous aspect. By the third day improvement was noted, and at the end of a month complete cure was obtained; no particular alimentary regimen was prescribed. In the second case—cause unknown—the diarrhœa had lasted seventeen years with intervals of a few months' cessation. The treatment adopted in the first case effected a cure in six weeks. The third case was one of chronic rectal catarrh due, probably, to a dysentery which the patient had had two years before. The case, which had resisted all treatment, was completely cured by the phenic acid injections in fifteen days. —*N. Y. Med. Abstract.*

Limit the Reading of Papers at Least to Twenty Minutes.—One of the Sections at Washington resolutely resolved to limit all speakers to twenty minutes, no vote being allowed to extend the time of anyone. The result was a series of bright, condensed, and interesting papers, the attention of the audience never flagging and satisfaction expressed by all. Another, perhaps many other, Sections, gave "courtesy" to one and so courtesy to all (except the listeners), with the result that some writers read for an hour or two, to the great disgust of everybody. And, to cap the climax, some of the hour-long papers were in Spanish! In these cases the punishment most excellently fitted the crime.—*Med. News.*

The Treatment of Hemoptysis. — Eklund, *Cenlralbl f. gesammte Therap.*, maintained that nothing is more dangerous in case of hemoptysis than the common practice of administering cold drinks or bits of ice. The cold causes increase in the bleeding; by irritation of the vagus, cough is induced; and by contraction of the gastric vessels the flow of blood to the lungs is increased. Eklund, therefore advises the administration of warm and mucilaginous drinks and the application of an ice-bag over the apex of the lung from which the hemorrhage is believed to have taken place. Besides, he directs the taking, three or four times a day, of three grains of quinine sulphate and a grain and a half of ergotin in pill form.—*Med. News.*

Physical Rest in Treatment of Chlorotic Anemia.—Frederick Taylor, M. D., F. R. C. P., in *The Practitioner* for September, in a valuable communication, lays particular stress upon the value of absolute rest in connection with the treatment of chlorotic anemia by iron. Against fresh air he has nothing to say so long as it does not involve exercise either by walking or riding. The worse the case of anemia the more absolute should be the rest. Patients suffering the more severe forms of the disease should be kept absolutely in bed, while the lighter forms are allowed to rise a few hours in the afternoon.—*Times and Reg.*

Corrosive Sublimate in Typhoid Fever.—M. Loranchet says that, corrosive sublimate taken internally gives rise to none of the toxic effects usually attributed to the use of mercury; it is well tolerated. It is easily administered and does not interfere with other methods of treatment. It appears to destroy the action of pathogenic ferments, and to put a check to an over-elevation of temperature, so that cold baths may be dispensed with. It seems, moreover, to decrease the contagiousness of the disease and, according to the author, it has given a sufficient number of cures to place its efficacy beyond doubt.—*N. Y. Med. Abstract.*

Permanganate of Potash.—Permanganate of potash as a disinfectant or deodorant has stood the test as giving better results than any other local applications. One drachm of the drug to water Oj. as a wet dressing to wounds and ulcers when there is too rapid formation of pus. It is a certain remedy in fetid, ichorous, or otherwise unhealthy discharges; an excellent application in erysipelas and gives very satisfactory results as a wash in obscess cavities after pus has been discharged. As an application to balanitis it is a curative, and as an injection in gonorrhœa it is one of the best.—*Am. Med. Jour.*

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address*, DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & CO., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, OCTOBER, 1893.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## THE PATHOLOGY AND TREATMENT OF SYCOSIS.

This disease is a notable instance of the value of modern pathology in simplifying classification and diagnosis, and in suggesting the lines of rational treatment. The name given it by the old Greek fathers of medicine was Sycosis, the "Fig-disease," because in a typical case the infected area was so intensely inflamed as to project like half a fig from the level of the face. There is little enough in this name to help in diagnosis or treatment, yet we cling to it. Mentagra, "the chin-ache," is another name seen sometimes, and commonest of all, "barber's itch." The pathology of the disease has been fully settled by many observers since Gruby, in 1844, discovered the fungus which causes it, and Malmsten, after him, called it *Tricho-phyton tonsurans*, the latter half of the name referring to the baldness caused by its ravages upon the scalp. Ziegler very aptly applies to all fungous invasions of the skin, as against bacterial invasions (erysipelas, leprosy, anthrax, boils, variola), the term *dermatomy cosis*, "mycelial developments in the skin." These mycoses of the skin he classes under the three main heads of Favus, Pityriasis versicolor, and Tinea tonsurans, the distinction being based on organic differences in the fungus causing the disease.

The fungus causing the latter type of disease may find lodgment in any part of the skin, hairy or non-hairy, and the consequent disease is known by different names, according to the area attacked. Thus, on the hairy scalp the lesion is called *Tinea tonsurans*, ringworm of the scalp. On hairless portions of the body, *Tinea circinata*. On the hairy face of the male, *Sycosis*, better *Sycosis parasitica*. And it is now recognized that the excessively annoying and intractable *Eczema marginatum* of the genitals and thighs is due to the same parasite. These four diseases, till lately never associated in the practitioner's mind, either as to cause or treatment, fall kindly into line, and accept the same general lines of treatment, differences of gross appearances, and variations of detail in treatment being due merely to difference in the anatomical seat of the lesion.

In the case of *Sycosis parasitica*, the indications are now clear. An irritant is present in the tissues of the face, at a depth about double of that in the scalp, and many times greater than in *Tinia circinata*, when owing to the comparative absence of hair-follicles only the deeper layers of the epidermis become involved; browny scale with little exudation is the result. The writer has seen a case exist for weeks on the face of a *Tinea circinata*, then suddenly develop into a most painful and extensive *folliculitis*, a true sycosis in everything except the absence of the fig-like isolated patches which gave the disease its name. Another face directly infected from this one, developed at once the classical sycosis, the suppuration being so extensive in one spot on the cheek, and the absorption so great, that the glands in front of, and below the ear, became much enlarged and tender, and the constitutional symptoms severe enough for a day or two to almost send the patient to bed. Temperature 102° F., and pulse rapid. The connection between ringworm and barber's itch is seen clinically in the frequency with which men who tend ring-wormy cattle during the winter, suffer from sycosis.

It is plain that the deep-seated inflammation of the face in sycosis, calls for different treatment to the superficial trouble in tinea circinata or even in ordinary ringworm of the scalp. In the latter cases, irritating applications such as chrysophanic acid, strong solutions of bichloride of mercury, strong acids, etc., have some show of reason, but to apply fuming nitric acid to an inflammation so severe as in true sycosis, is as irrational as to apply passive movement to an inflamed joint. The indications are first to remove the irritant, and second to prevent infection of other portions of the face.

As to the first, it may be granted that the suppuration is Nature's effort at self-cure, and that in time the focus of disease will become unsuitable to the further growth of the fungus. But in the mean time the hair-follicles of the part have suffered irreparable damage, and a bald spot is the result, with the chance of keloid too as a permanent disfigurement. Hence the value of timely depilation, as the hair plucked in time leaves the papilla at the bottom of the follicle in a fit state to produce another hair. Every day accordingly let the physician, or some one else, with sharp pointed tweezers that will not catch more than two or three hairs at once, go carefully round the edge of the infected spot, not pulling healthy, firmly rooted hairs, but the diseased ones, when there seem to be two together, or where the hair when pulled looks black at the root from the blood of inflammation in the follicle, or brings with it a minute globule of pus. Besides this let a small sharp bistoury divide each little infected spot, if pus does not freely escape with the pulling of the hairs. The fungus can be left to itself, as reproduction cannot go on in such tissues. The sore needs a simple antiseptic dressing, corrosive sublimate in weak solution, to destroy the spores in the secretions.

As to the second indication, it is amply fulfilled by daily and repeatedly bathing the sound parts of the face with 1-1000 solution of bichloride or with sulphurous acid. Ordinary precautions as to pillows, armchairs, towels, etc., used by the patient, should be enjoined. The writer has seen severe and extensive sycosis, with thorough and persevering depilation for many days, result in as good a growth of beard and moustache as before the disease.

## INTRAPERITONEAL HÆMORRHAGE.

The annual oration for 1893, before the Medical and Chirurgical Faculty of Maryland, was delivered by Dr. Reginald H. Fitz, of Harvard University. The paper is most interesting, and lacks little, if anything, of meriting the title of a classical essay. We find it reported in full in the *Maryland Medical Journal* for June 17th.

The practical points of diagnosis and treatment occupy the chief place in the paper. Dr. Fitz would make a classification of intraperitoneal hæmorrhages, according to the gravity of the loss of blood, as well as to the situation of the escaped blood in the peritoneal cavity. The situation of the blood will often have much to do with the subsequent presence or absence of septic infection.

Intraperitoneal hæmatocele—a shut-in hæmorrhage—is generally pelvic in site, occurs in women, and forms a tumor. If the bleeding does not continue, and recovery is made possible by present conditions, there is frequently an uneventful absorption of the clot. But the pelvis, being a region favorable to the septic infection of retained clots, may become the arena of a destructive inflammation of the surroundings. This may result in a discharge by the rectum, by the vagina, or by other channels, or, rarely, we meet with a quiet absorption without septic complications; and the possibility of these occurrences is an insufficient justification for a severe operation for their prevention.

These hæmorrhages, therefore, should be intelligently separated one from another, whether they are immediately dangerous, or only remotely so, and whether or not they are comparatively harmless. The immediate danger from these extravasations is rapidly progressing anæmia. The difficulty of diagnosing these cases is illustrated by the following sentence of Dr. Fitz's: "An exploratory laparotomy has often proved to be the only means by which the diagnosis has been established, and has repeatedly made clear that there has been no intraperitoneal hæmorrhage, which had been suspected."

Only by the full knowledge of the complications arising from abdominal aneurism, cancer, ectopic gestation, and many other conditions, can the "diagnosis by exclusion" be made out. Veit has shown that there are no physical signs sufficient to prove the presence of blood free in the peritoneal cavity.

Dr. Fitz has a good opinion of laparotomy in selected cases, but is not an advocate of the early exploratory operation. If this operation is done, the case is changed from a medical into a surgical one. "If this is employed," he says, "the treatment of necessity becomes abdominal and surgical, whereas in many cases it should be medical, or, if surgical, then vaginal or rectal." He favors medical treatment whenever feasible, for it either permits the patient to get well without the use of the knife, or it renders possible an easy operation

when needed, and one not demanding the maximum of skill.

In this view of the case, we naturally expect to find Dr. Fitz an earnest friend of the operation of vaginal puncture, and from his remarks at the close of the oration, we are led to believe that he has had a large and successful experience in that direction.

## THE ROLE OF THE POSTERIOR URETHRA IN CHRONIC URETHRITIS.

In a paper read by Dr. Bransford Lewis, of St. Louis, before the late meeting of the American Association of Genito-Urinary Surgeons, and published in the *Medical Record*, the author presents some very radical and unorthodox views on the frequency of posterior urethritis and its influence in the production of chronic gonorrhœas.

The various causes commonly accepted as sufficing to explain persistence in gonorrhœa, were reviewed, and their potency as such were denied, seriatim. Two cases were reported showing that the presence or absence of the gonococcus, alone, could not form a reliable criterion as to prognosis. In the first case, primary, with abundant gonococci, the discharge lasted six weeks; while in the second case, secondary, also giving abundant gonococci, it lasted only one week. The influence of anatomical abnormalities was restricted to only a small minority of the exceedingly numerous cases of chronic gonorrhœa, and did not explain the great number that occurred. The several varieties of urethritis, such as "granular urethritis," "catarrhal urethritis," "hypertrophic urethritis," etc., were only pathological incidents, not causes, of chronic gonorrhœa; and even on discriminating between these several varieties, the question still obtruded itself: What was it that had produced that particular variety?

Again, urethral therapists, with ardently-advocated new remedies, supposably specifics, had all in turn failed in their endeavors to abolish prolonged claps. So that it must be acknowledged that the various factors to which chronic urethritis was usually attributed, while relatively important in a contributary way, did not cover the ground in actual clinical experience; and something else must be found to bear the onus of being a prolific source of chronic gonorrhœa.

While aware that infection of the posterior urethra was almost universally recognized, by advanced practitioners of the present day, as a complication of gonorrhœa that was difficult to cure when it did occur, and that interfered with the usual course of treatment employed, and required special measures for relief, etc, the writer did not believe that the full importance of posterior inflammation was generally conceived; that its frequency was even approximately estimated in general, or that its bearing on almost every case of gonorrhœa was understood, recognized or acknowledged.

In Dr. Lewis' opinion, the posterior infection should not be looked upon as a complication, but as a natural feature, occurring with such unfailing regularity that an observer, watching carefully and critically, gonorrhœal cases, must see a great many of them before he would meet with a single one that remained free from the so-called complication throughout the disease. This conclusion, to which clinical investigation had led him, was supported, in recent writings, by the following statistics of authors who had been pursuing a similar study of late years: Lesser asserted that of fifty-three cases of primary gonorrhœa under his care, the posterior urethra escaped infection in only four cases, making the frequency of posterior urethritis 93.5 per cent. Jadassohn found posterior urethritis in 143 of 163 cases, making 87.7 per cent; Rona found it in 79.7 per cent. of his cases; and Eraud found it in 80 per cent. of all of his cases.

In endeavoring to harmonize this undoubted fact of frequency of posterior urethritis with the reason for its frequency, the author disregarded, as inapplicable, explanations usually given. Sexual intercourse, the "forced" injection, the passage of instruments, etc., during an active gonorrhœa, were chiefly complained of by writers on the subject—extremely seldom by the patients themselves. Bearing on this point, the time and mode of onset of the posterior inflammation was of importance. Instead of the inflammation progressing slowly and gradually backwards over the urethral mucous membrane and reaching the posterior urethra, in the second or third week, as was commonly taught, it reached the posterior urethra, in most cases, in the first week of the disease. This rather favored the supposition

of Horteloup that the mode of infection was through the lymphatics rather than by continuity over the mucous surface.

The author, therefore, felt justified in submitting the following conclusions:

1. The causes usually given for the prolongation of cases of clap (presence or absence of gonococci, stricture of large calibre, the use of particular drugs in treatment, etc.) do not satisfactorily explain them, nor do they furnish reliable means for prognosticating the outcome of a case. 2. A single widely prevalent cause for such prolongation of gonorrhœa has, as yet, not proved its right to recognition as such. 3. Posterior urethritis, by reason of its anatomical seclusion and inaccessibility to ordinarily-prescribed treatment, if frequent, offers the best explanation for such prolongation or repeated recurrence. 4. Scrutinizing clinical investigation shows posterior urethritis to be present in the great majority of cases of prolonged or severe gonorrhœa. 5. Direct, topical treatment to the posterior urethra is, therefore, necessary in the great majority of cases. 6. The causes usually given for producing posterior urethritis are not commonly found to be real factors in the clinic. 7. The mode of onset usually described does not coincide with that discerned in clinical observations. 8. These two latter observations confirm the probability that the posterior urethral infection is accomplished through the lymphatics, and explain the frequency of such infection. 9. Posterior urethritis is not a complication, but a natural phenomenon of gonorrhœa.

---

The Moderate Use of Alcohol.—Sir Dyce Duckworth, recently, in a speech at the Hague on the physiological effects of alcohol on the human organism summarized his conclusions as follows, *Lancet*:

(1) That it had not been proved that the moderate use of alcohol was hurtful to the inhabitants of Europe and was necessarily prejudicial to civilized nations.

(2) That the most enlightened nations had, as a rule, made use of alcoholic liquors.

(3) That there existed no enlightened testimony to show that the moderate and simultaneous use of alcohol and of sound food could injure the organs of the human body; that, on the contrary, there was ample proof in support of the assertion that such a use was usually beneficial, and that the legitimate and rational use of a thing by no means justified its abuse.

(4) That for many people complete and continual abstinence from alcohol was not at all to be recommended, and that it was recognized that such a course of conduct employed as an exemplary measure had never, with any people, succeeded in bringing about the disappearance of intemperance.

(5) That the majority of the posterity of drunkards and of persons of an ill-balanced nervous system would do well to abstain altogether from alcohol, or at least before partaking of it to consult a competent and experienced physician.

(6) That the use of impure and adulterated alcoholic drinks is attended with many consequences more or less disastrous, and that the extreme physiological limit which the individual constitution can support ought rarely to be reached, most certainly not passed.

(7) That the young should be instructed, as part of their education, to recognize the proper and legitimate use of alcohol, and to moderate and subjugate their appetites.

Reduction of Prolapsed Hæmorrhoids.—Says Dr. Didama, *Jour. Am. Med. Assoc.*: Now, it may be some satisfaction to the doctor, as well as a great comfort to the patient, to know a comparatively easy method of effecting reduction. This is it: Posture may be important, but the best one is not always required. In moderately severe cases the patient may be on his back with knees drawn up. If the hæmorrhoids are very tender from strangulation and manipulation, cocaine should be applied till analgesia is fairly well established. Then the parts should be thoroughly lubricated with vaseline, and the tips of three or four fingers of each hand applied to the purple projections. Steady pressure is to be applied, while the patient is ordered to press down in the defecation of hardened fæces. Instinctively, and almost invariably he shrinks and draws away from the pressure on the painful swellings, at the same time puckering the already too contracted anal orifice. But when he is made to comprehend that puckering renders reduction impossible, while resolute and persistent straining down relaxes and opens the orifice and allows the swellings to be forced back

into the rectum, often semi-instantaneously, he will govern himself accordingly. Sometimes the performance can be terminated more speedily by having the patient assume a squatting posture, after the preliminaries have been attended to. Then the straining down seems to be more thorough and efficient, and the piles, liberated from constriction, slide homeward with little compulsion. This is the facile reduction of prolapsed hæmorrhoids; and the patient can be taught to accomplish it early and easily without the aid of the physician.

Treatment of Chronic Valvular Disease of the Heart.—Dr. James Tyson, *Therap. Gaz.*, discusses the various heart tonics used in the treatment of chronic valvular disease of the heart.

Digitalis is a remedy always better intermitted to obtain its best effects. He believes that the greater apparent efficiency of the infusion is partly due to the fact that it is generally given in larger doses. One half an ounce is not an infrequent dose of the infusion. This represents nearly three grains of the powder, or twenty minims of the tincture. Of remedies which may be substituted for digitalis, strophanthus should, perhaps, be first mentioned, not that it is always the best. Dr. Tyson has used it in doses of ten minims or twenty drops every two hours for forty-eight hours, without interruption and with good results. It is undoubtedly better borne by the stomach than digitalis. Caffein is an admirable heart tonic in mitral regurgitation. One should not give less than three grains at a dose, seldom more, every three hours. When caffeine has been given in full doses for some time it produces mental symptoms quite characteristic, consisting in hallucinations. They, however, cease immediately when the drug is discontinued. Another effect of caffeine which sometimes interferes with its usefulness is its effect in inducing insomnia. Sparteine sulphate, the author values very highly, especially where a diuretic effect is desired. The dose to rely upon is never less than one-fourth of a grain, increased to one-half of a grain, three, four, and five times a day.

A New Illustrated Dictionary of Medicine, Biology, and Collateral Sciences.—Dr. George M. Gould, already well-known as the editor of two small medical dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a corps of able assistants have been uninterruptedly engaged for several years. The feature that will attract immediate attention is the large number of fine illustrations that have been included, many of which—as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work. Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in biology, chemistry, etc. The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new knowledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume. The pronunciation, etymology, definition, illustration, and logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter, a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance. The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference. The publishers announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.

The Treatment of Primary Sciatica by Acupuncture. — Dr. E. Valentine Gibson, *Lancet*, reports that of one hundred consecutive cases treated by acupuncture, fifty-six were cured; thirty-two were much improved; ten were improved; while in two cases there was no improvement. This is considered to be a very satisfactory result, considering the chronic nature and the severity of the cases. In addition to the acupuncture, they all used the Buxton thermal water, which has a great reputation for the absorption of inflammatory products. The needle should be single, spear-pointed and about two and a half inches long.

It should be inserted directly into the nerve, which will be known by the pain which shoots down the leg. The needle should be immediately withdrawn, as no better results are obtained if they are left *in situ*, and additional pain is likely to be caused. The nerve should be pierced about five times at intervals of a few days, over the parts where there is pain on pressure. Rest is necessarily most essential, as it is in other inflammatory conditions, and a rheumatic or gouty diathesis should be treated by appropriate remedies.

P. Flechsig recommends a new method of treating epilepsy, *Ther. Blatt.; Times and Reg.*, viz., a combination of the opium and the bromide treatment, opium being used exclusively for six weeks and then replaced at once by bromides. He gives the powder or extract of opium, a grain two or three times a day, increasing the dose up to fifteen grains a day. At the end of six weeks the use of the opium is stopped suddenly, and large doses of bromide (two drachms a day) are adminstered for about two months; afterwards the dose is diminished successively down to half a drachm a day. The author lays most stress on the sudden interruption of the opium treatment by the use of bromide. During the use of opium the fits do not decrease in number but occasionally; as a rule, the influence of the cure shows itself only after the use of the bromide. F. has obtained excellent results with this method.

Treatment of Glandular Endometritis of the Cervix.—Hartman, *Annales de Gynècologie et d' Obstètrique*, says this form of endometritis is very common in young girls, and is characterized by a discharge of white or light green, thick, tenacious fluid. The presence of the gonococcus has been noted in a number of cases. It obstinately resists curetting, but has been ameliorated by such treatment, and indeed sometimes cured.

Doléris recommends scarification of the mucous membrane, which will allow the penetration of medicinal agents, while Bouilly suggests ablation of the mucous membrane of the diseased area.

After the mucous membrane has been removed, the cervix should be freely painted with a mixture of glycerine and creosote (1 to 3), and the cervix and vagina packed with iodoform gauze. The dressing should be removed in forty-eight hours, and a fresh piece of gauze, wet with glycerine creosote, should be inserted within the cervix. There is occasionally serious hæmorrhage during this operation, which requires a tampon for its relief. If the disease returns, the cervix should be amputated, as recommended by Schroeder.

The Diagnosis of Typhoid Fever. — Dr. V. Filipovich, of Odessa, has remarked, *Lancet*, that, in all the cases of typhoid fever that have come under his notice during the last two extensive epidemics in Odessa, there have been a peculiar induration and yellowish or orange tint in the prominent portion of the plantar and palmar surfaces, instead of the reddish color to be observed in healthy subjects, or the bluish tinge which those parts assume in a cyanotic patient. This yellowish appearance is to be accounted for by the enfeebled action of the heart, the incomplete filling of the capillaries and the dryness of the skin in typhoid fever. The sign is so constant and so well marked, that Dr. Filipovich thinks that it should be looked upon as affording important assistance in the diagnosis of doubtful cases. That it is in no sense peculiar to the two epidemics that occurred in Odessa, is shown by the observations of Dr. Skibnevski, who states that he invariably observed it during an epidemic in the neighborhood of Moscow.

Bicarbonate of Soda and Digestion.—Linossier and Lemoine, in a recent communication to the French Academy of Medicine, *St. Louis Med. and Surg. Jour.*, conclude that bicarbonate of soda, in all doses, excites gastric secretion. According to their observations, the dose which produces the most powerful effect is one of five grammes given an hour before a meal. The action is prolonged beyond the day of administration, an increased secretion being kept up. It is essentially to be used in cases of insufficient gastric secretion, and ought to be given some time before a meal. In cases of excess of acidity it only acts as a palliative, and there is a risk of its aggravating the condition. They suppose that the administration of hydrochloric acid is of more service in diminishing the excess of secretion, just in the same way that alcohol retards alcoholic fermentation, or lactic acid lactic fermentation.

THE TREATMENT OF DIABETES.—Harley, *Brit. Med. Jour.*, after speaking of the remedies generally employed in diabetes, such as opium, morphine, codeine, hyoscyamus, cocaine, bromide of ammonium and the like, calls attention to the value of croton chloral. He says: "The beneficial effects of croton chloral often surprise me, but I seldom ever give it except in combination with a vegetable narcotic or anodyne. . . . To give a single formula that will answer in every case of a protean disease like diabetes is, however, out of the question, so all I will do is to give the one employed in the case just alluded to. It is the following:

| | |
|---|---|
| ℞—Croton chloral, . . . . . | ½ gr. |
| Opii. . . . . | j gr. |
| Ext. aloes barb., . . . . | ⅙ gr. |
| Ext. gentianæ, . . . . . | jss gr.—M. |

Sig.—One pill to be taken three time a day."

In cases of diabetes resulting from nervous exhaustion, as well as those arising from pancreatic disease, he states that he found extract of nux vomica in ¼ gr. doses three times a day in a croton chloral pill of great service. In such cases remedies tending to improve the general health, notably phosphoric and nitro-hydrochloric acids, are of service. He has found antipyrin and peroxide of hydrogen very useful in one or two instances.

THE FORMS OF DIABETES.—Dr. George Harley, *Med. Rec.*, gives the following classification of diabetes.

1. Hepatic diabetes—including the gouty variety.

2. Cerebreal diabetes—including all cases of saccharine urine arising from nerve derangements.

3. Pancreatic diabetes—the most deadly form of the disease.

4. Hereditary diabetes—a form by no means uncommon, and one, too, where both brothers and sisters may labor under the disease without either their maternal or paternal parent having been affected by diabetes, though more distant members of the family may have suffered from it.

5. Food diabetes—including all forms of saccharine urine arising from the ingestion of unwholesome substances.

In the matter of treatment, besides diet and opium or codeine, Dr. Harley recommends croton chloral, strychnine, phosphoric acid for thirst, and and an absolute prohibition of alcohol.

CRUEL ANTI-VIVISECTIONISTS.—The aigrette in a lady's bonnet is the crowning beauty of an egret mother.—*Cornhill Mag.*—The collector—and each nesting season fifty men are employed in this business—waits till she is on her nest, her little breast full of peace, and the young just hatched, so that the mother will not leave them easily, though alarmed. He ruthlessly seizes her, tears off her crowning plumes and her wings, and then throws her down, gasping, torn, and fluttering, to die beside her little ones, who, deprived of her fostering care, die also miserably. Lately, at a meeting of anti-vivisectionists, it was a curious instance of "the evil wrought through want of thought" that many of the ladies protesting against the cruelty of vivisection wore these very egret plumes in their bonnets.

DIAGNOSIS OF APOPLEXY.—Dr. Mills, in the *Polyclinic*, based the diagnosis of apoplexy on the following points:

1. The sudden fall with unconsciousness at once, no injury perceptible, face white.

2. Respiration stertorous, noisy, puffing cheeks, tendency to Cheyne Stokes, interrupted, improved by turning on side.

3. Right face droops more, and right cheek flaps more than the left. Right pupil widely dilated; left contracted. Retinal veins distended. No rotation of head and eyes to one side.

4. Pulse full and slow; temperature subnormal.

5. Convulsive movements noted at first have ceased; both arms and legs drop lifeless equally. Left side was paralyzed first. Sensation almost completely abolished.

SUCKLING says that Indian hemp, in ten minim dose of the tincture three times daily, is almost a specific in insanity in women due to mental worry or moral shock, and is also of great value in mania and melancholia.

APOPLEXY.—Elevate the head and shoulders; if pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more; elaterine (one-sixth grain), or croton-oil, two drops in drachm of sweet oil or glycerine; cold to the head by means of an ice-bag.

## Books and Pamphlets.

Hand-book of Diagnosis and Treatment of Diseases of Throat, Nose and Naso-Pharynx. By Carl Seiler, M. D., Laryngologist, etc., University of Pennsylvania. Fourth edition, pp. 412, 107 plates and engravings. Philadelphia: Lea Bros. & Co. 1893.

This well-known little work appears again in improved form in the fourth edition, and should be read by every general practitioner, for whom, primarily, it is meant, and not for the specialist. The technique of Laryngoscopy and Rhinoscopy is briefly given, with brief accounts of such every-day affections of nose and throat as can be and ought to be treated by one's self, not sent to the specialist.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, A.M., M.D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia, etc. Second edition, revised and enlarged, with chromogravure plates, and other illustrations; pp. 878. New York: D. Appleton & Co. 1892.

This seems as completely satisfactory a work as can be compiled, within the scope of the needs —not of the specialist—but of the general practitioner. The author had evidently a well-digested plan for its construction. Part I. consists of a short discussion upon the anatomy of the skin, its physiology, its symptomatology, general remarks on the diagnosis of cutaneous affections, then their pathology, their etiology, prognosis, and finally, treatment, the pages on the latter head containing a somewhat detailed discussion of the various therapeutic measures, and drugs. Part II. begins with the author's system of classification, a modification of Hebra's, which seems to be based upon the latest results of pathological research. It may seem at the first blush odd to classify, under the same head of Exudations, disorders so diverse as sycosis, typhoid rash, boils, and frost-bites, and under his arrangement, of course, the class of exudations is very large, these diseases taking 323 pages for their discussion.

Treatment, as being to the practitioner the most interesting topic, is very fully given. We have not seen, anywhere, so varied and detailed an account of the treatment, for instance, of tinea capitis, as here. There is a very extensive and useful formulary as an appendix, most helpful to the novice, in the treatment of skin diseases. The cuts and plates, printing and binding are good.

Hygiene and Public Health. By Lewis C. Parker, M.D., D.P.H., London University, Lecturer on Public Health at St. George's Hospital Medical School, etc. 3rd Edition, 523 pages, with illustrations. Philadelphia: P. Blakiston, Son & Co 1892.

The fact that a third edition of this work was necessary in two years bespeaks its value. It is the outcome of the experience of one of the best teachers in London, and the author's aim seems to have been attained, announced in the preface, "to occupy within a small space nearly the whole field of sanitary science," and enable the reader "to refer with advantage to the larger and more abstruse text-books." The work is concise, modern, not over-loaded and padded with statistical and other tables, simple and direct in style, and should be popular among students and instructors in Canada.

A Handbook of Pathological Anatomy and Histology. By Francis Delafield, M.D., LL.D., Prof. of Practice of Medicine, Coll. Phy. and Surg., Columbia Coll., N.Y.; and T. M. Prudden, M.D., Prof. of Pathology, Coll. Phy. and Surg., Columbia Coll., N.Y. Fourth edition, 300 wood engravings in black and colors. 715 pp. N. Y.: Wm. Wood & Co. 1892.

The reputation of the authors is a guarantee for the value of this work. The volume is a most attractive one, from the superior character not only of the type and paper, but especially of the cuts, to which the only exception that can be taken is that they have in many cases been reduced from an original of higher magnification, giving to the student not the most accurate idea of the real microscopic appearance. In rigid consecutiveness and scientific breadth of view of the whole field of pathology, the table of contents perhaps is hardly up to that of Ziegler's classical work, but some of the chapters here are valuable additions to the scope of the book; for instance, that on the method of making *post-mortem* examinations and of preserving and examining tissues. The remarks on such subjects as the origin of tumors, and the classification given of tumors, are admirable. Part II. deals with General and Infectious Diseases, and General Pathology, while Part III. takes up the special pathology of the different organs, and Part IV. dips into the lesions of violent deaths and deaths by poisoning, work hitherto left more to the writers on Forensic Medicine. The work is a valuable addition to the list of texts available for the English-speaking student.

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### THE THERAPEUTICS OF BLOOD-LETTING.*


BY THOMAS T. HARRISON, M.D.

President of The Canadian Medical Association, Selkirk, Ont.


Born at a time when venesection was recognized as a great therapeutic agent, and having from my earliest infancy the run of a surgeon's office, there is nothing more firmly fixed in my early memory (except perhaps the extraction of refractory molars with the key of Garangcot), than the bared arm, the flowing blood, the lancet and the bandage.

Later, when as a boy I became acquainted with the practice of medicine in the woods of Canada, bleeding was the popular remedy for all fevers, on their accession, sudden pain and injuries. There was scarcely a settlement that did not possess at least one man who kept a lancet and could use it. If at a gathering a woman fainted, or a man was knocked senseless, the sleeve was drawn up, and some neighbor—perhaps with a penknife—opened a vein; and the fact that when the blood began to flow the patient revived, firmly convinced the operator of the value of this remedy.

Venesection was considered *the* remedy in pneumonia. You will remember that when O'Meara was arguing with Napoleon on his want of confidence in the value of medication, he instanced inflammation of the lungs as a disease not likely to be removed without it. Bonaparte asks, What is the remedy? "Blood-letting is the sheet anchor." "Oh!" says Napoleon, "'tis the surgeon cures it. I always had faith in surgeons." The pregnant woman thought bleeding a necessary precaution to prevent the accidents and diseases peculiar to her condition, and I have repeatedly seen her come to be bled on her own responsibility, without asking a question as to whether it was necessary or useful. The farmer bled his horses when he turned them out to pasture, and had himself bled when the weather became warm. The lancet, like the swallow, was the harbinger of spring.

From time immemorial bleeding in some form had been recognized as a valuable agent in the treatment of diseases, and as little likely to do harm as any other remedy in use. Virgil, in one of his pastoral poems, talking of the diseases of sheep, says, as rendered by Dryden:—

> "Deep in their bones when fevers fix their seat,
> And rack their limbs, and lick the vital heat,
> The ready cure to cool the raging pain,
> Is underneath the foot to breathe a vein."

Now we have changed all this. If we were to propose to our patients to take sixteen, twenty, or forty ounces of blood from them, the proposition would shock them more than the loss of the blood affected their fathers or mothers, and it is doubtful if among the younger members of the profession, there could be found a man that would know how to draw it. Bleeding has truly become a "lost art." I doubt whether you could find one in fifty of the graduates of the last fifteen years who had ever bled a patient, or seen a vein opened. When in consultation I have advised venesection, I have been repeatedly called aside by the doctor and asked to do it, he adding "I have never seen a patient bled."

To what can we attribute this complete neglect and disuse of a remedy so universally employed in the memory of men still practising—that had been in use so long, and that had been endorsed by so many celebrated physicians? Was it wise to give it up so entirely? Is it useless as a remedy? Is it dangerous? Were our forefathers all fools?—all mistaken? Or have we other remedies quite as efficacious, and less unpleasant?

The days of venesection were the days of enormous dosing. We read in the old medical works of the "vis medicatrix naturæ," but the ordinary practice of the time would lead one to suppose it was little trusted in. The patient seemed to be considered in a slough, out of which he was to be lifted bodily by the power of medicine and medication; and, besides bleeding and blistering, the enormous doses of crude drugs, and the rapidity

*Read before the Ontario Med. Association, June, 1893.

with which dose succeeded dose, would take the breath of a modern patient.

When in the latter part of the last century Samuel Hahnemann deemed that he had discovered the principle upon which all remedies acted, as expressed in the aphorism "*simil ia similibus curantur*," and acted upon it with the decided dosage of those days, he soon found he would have to give up his theory or his practice. He got over the difficulty by administering his infinitesimal doses, which really equal nothing. Patients undoubtedly recovered under his treatment. He professed the greatest contempt for the efforts of nature, and held that she rarely, if ever, made a cure, and therefore extolled the wonderful curative power of his dilution of a shadow. Sensible men learned from his practice the great recuperative power of the system, when neither assisted nor retarded by the action of medicine; and the result was a school of sceptics, led perhaps by Scoda, and a more or less general distrust in the use of medicine.

It was during this period, before the more modern, scientific, and exact method of investigation had demonstrated the real power and value of remedies, that the Edinburgh Professor, John Hughes Burnett, made his attack on bloodletting, especially in pneumonia; and by showing a larger percentage of recoveries without bleeding, than under the indiscriminate antiphlogistic, evacuant, and depressing treatment then in vogue, gave the death-blow to the use of the lancet. It was not a pleasant operation, especially for the nervous patient, and many a timid physician was glad to give up the use of it.

Undoubtedly, the indiscriminate use of bloodletting, on nearly every occasion, did a great deal of harm; but so did the indiscriminate use of medicine. A therapeutic agent to be in all cases, and in all hands safe, must be useless. The powerful remedy is only safe in the hands of those who know its power, recognize its dangers, and understand its *modus operandi*. To these, the more powerful the agent, the more certain its action, the more useful it is found to be in cases of serious disease; and I feel certain that discarding so potent an agent as blood-letting, has not been to the advantage of our patients.

My own personal experience had given me the greatest confidence in bleeding as a remedy in congestion of the lungs. Just as I entered manhood, I had a most severe attack of pneumonia, and I well remember the sensation of suffocation, the feeling of impending death that I experienced. At the height of the congestive stage, my father took about sixteen ounces of blood from my arm, and I felt so much relieved, and so well, that I got out of bed and walked to the fireplace while I changed the linen that had become soiled with the blood. I was bled again the next day, and though the disease ran its course, I do not think that the loss of about a quart of blood within twenty-four hours retarded my getting up, and I am sure that no one who has experienced the relief which followed the loss, would ever forget it.

Soon after I commenced practice, I had a patient with congestion of the lungs, and all the symptoms of commencing pneumonia. My patient had been exposed to typhoid fever, and some of the symptoms led me to fear she would have it. This alone prevented my using the lancet. I saw her in the evening, and was in doubt whether to bleed or not. I left without doing so, and was called before morning to stop a profuse hæmorrhage from the nose. She had lost a pint or more; the flushed face had become pale, pulse soft, congestion of lungs relieved, and she recovered without a bad symptom, or the inflammation passing the first stage.

Dr. Shand, of Edinburgh, reports a case of congestion of the lungs; and as the patient, a student, was the son of a medical man, he deferred bleeding until he had the father's views on the subject. Before he left the house, blood gushed from both mouth and nostrils. Dr. Shand immediately opened a vein. As soon as enough blood had flowed from the arm to affect the system, the epistaxis ceased; and, after free bleeding, the patient was relieved, and rapidly recovered.

He gives a number of cases to prove that he has relieved congestion of the lungs, and cut short pneumonia by bleeding in the first congestive stage; and in one case of pleuro-pneumonia, in which the patient had been steadily getting worse — the pain and dyspnœa increasing — he bled on the fourth day. The pain became less, the breathing easier, as the blood flowed; and his patient recovered so rapidly that he did not repeat his visit.

Dr. Ogle, of St. George's Hospital, says that a

patient with all the symptoms of double pneumonia, was struggling for breath. Thirty ounces of blood were rapidly drawn from the arm, and its effects were immediately manifest. The pulse became fuller and slower, breathing greatly relieved, and the patient easier. Sydenham says, quaintly: "In these cases, bleeding does the work of the windpipes."

Dr. Reid, of Edinburgh, in 1836, demonstrated on dogs and rabbits, that in cases of poisoning causing enfeeblement, or suspension of the heart's contraction, on freely opening the external jugular, and unloading the right cavities of the heart, circulation returned.

Dr. Clark, of Oswego, tells us that he bled a woman, at the period of whose menopause double pneumonia set in, six times within three and a-half days, twelve ounces or more at a time. Each bleeding relieved the congestion then present, and though the disease ran through all its stages, she recovered; yet her case was so critical that, at the time of the third bleeding, an experienced consulting physician thought her beyond hope, and was convinced that nothing but the relief of the congestion by that bleeding could have saved her.

A lady, 51 years of age, with dilated heart and dropsy, had a very violent attack of pneumonia. Dr. Clark bled her thrice, a pint or more each time, and in thirty-six hours she had recovered.

At the American Medical Association, held a few days ago at Milwaukee, Dr. Washburn read a paper on "Pneumonia," in which he stated, and his statement was uncontradicted, that pneumonia is more fatal in our hands than in those of our fathers, and that the results of their active, combative treatment were better than the expectant treatment of to-day. In the discussion, though one gentleman advocated blood-letting—it was hypothetically—not one of the speakers seemed to have used the lancet.

Dr. Samuel Wilks, in the *London Lancet*, gives a case of a small boy in extremis with capillary bronchitis; face livid, eyes starting out of his head, and the external jugular full and prominent. The doctor opened the jugular, letting out several ounces of blood; when the breathing became easy the lividity passed away, and in a very short time the child recovered.

In a case of chronic bronchitis, in an elderly lady, Dr. Wilks had her cupped between the shoulders, and was surprised at the wonderful relief that the evacuation of a few ounces of blood gave, the relief taking place as soon as the blood flowed. In cyanosis and emphysema, Dr. West has seen it give prompt relief, even when the organic lesions were so great as to be beyond aid.

In heart disease, with sudden accession of congestion, overloaded right ventricle, and difficult breathing, we have a wonderfully prompt and efficient agent to relieve it in the lancet. This I have more than once demonstrated in my own practice.

Dr. Shand gives a case in which he relieved the pain and dyspnœa caused by stenosis of the mitral valve by free bleeding; and parallel cases which did badly where he did not bleed.

Dr. West, of St. Bartholomew's, had a case of aortic disease, where his patient was suddenly attacked with congestion, spitting of blood, and such difficulty of breathing that he considered him in imminent danger. He took from the arm a pint or more of blood, and in less than an hour he dropped asleep, all the urgent symptoms relieved. A patient of his with mitral disease, great dilitation and well-marked Cheyne-Stokes' respiration, was seized with sudden dyspnœa and became cyanosed. Eight ounces of blood taken from his arm promptly relieved the urgent symptoms, so that he slept comfortably for some time. Of course, it did not cure the heart disease, of which he died two days later.

In apoplexy—or attacks at least closely resembling it—bleeding has frequently given prompt and marked relief, and though it can scarcely affect the already extravasated blood, if taken in time it may prevent it, and even after it has taken place may limit the amount.

Dr. Shand gives a case of apoplexy where the patient fell against the corner of a table, laying open one of the temporal vessels; profuse hæmorrhage occurred, which restored consciousness and greatly relieved her.

Dr. Perigal, of Edinburgh, took a few ounces of blood from a man who had been many hours unconscious from injury to the head, and consciousness returned while the blood was flowing; and Dr. West gives many instances of brain injury or disease permanently cured, or temporarily relieved by venesection.

Dr. Russell Fosbrook says he had a case of impending death from apoplexy. He took a pint of blood from the arm. The face, which was livid, rapidly assumed its natural hue, the dilated and fixed pupils contracted and became mobile, and the patient became conscious.

Dr. Clark, of Oswego, bled a boy, of less than five years, to the amount of sixteen and a half ounces. The boy had convulsions, was in deep coma, pulse small and weak, surface pale and cool. The relief from this enormous depletion was so great, that he found him at play on his next visit.

I have seen many cases of eclampsia. I have treated them with chloroform, with chloral and the bromides, with morphia, with calomel and croton oil, variously combined, and with blood-letting, and although of course all cases do not require depletion, I can say, that I never regretted having used the lancet, though in cases where I neglected to bleed I have more than once felt sorry for the omission.

In one of my cases, a very large fat woman, I had been giving morphia freely for neuralgic pain, when the first convulsion occurred. It was early in my practice, before the days of chloral and the bromides. I had no chloroform with me. I had to make a dissection before I could find a vein, but when I did, I took blood to the amount of seven or eight pints before I made a decided impression on the circulation. The convulsions ceased, and before my father got there to my assistance, and I got a supply of chloroform, my patient was sleeping quietly, and she recovered from the abortion which ensued, as readily as if she had not lost an ounce. I would not advise bleeding in all cases of eclampsia, but where I had the slightest doubt, I would bleed.

Dr. Wilks had a case of uræmic convulsions, where his patient was comatose, face and extremities livid, skin cool, the woman nearly pulseless, and said to be dying. He bled freely, when the pulse rose, the lividity passed off, the skin became warm, and the patient recovered. He reports another case with albuminous and scanty urine, engorgement of the lungs and hæmoptysis, in which the good effects of venesection were as clearly and speedily manifested, and as permanent. Some medical men who have tried bleeding in uræmia, have failed to see much or any benefit from it.

Even the presence of tuberculosis, according to many observers, need not deter us from using blood-letting where the state of the system seems to require it. Dr. Huggard, of Davos, says, when hæmorrhage from the lungs takes place in a plethoric patient, he does not hesitate to bleed, in some cases to forty-eight ounces. In all such cases it lowered the temperature, improved the pulse, and, at least, had no unfavorable influence on the tuberculous disease.

Cases of chlorosis and anæmia, where we should suppose loss of blood could do nothing but harm, are frequently benefited by moderate blood-letting; the loss of a few ounces of blood seeming to stimulate the blood-forming organs, and to greatly assist the action of iron and the bitter tonics.

As the result of my experience and investigations, I am strongly convinced that while we have adopted many of doubtful utility, we have, in blood-letting, discarded an old one of great power and value, an agent whose therapeutical actions and capabilities are well worthy of a new, patient, and impartial investigation. That while in the present state of our knowledge we cannot consider it a remedy for any special disease, there are many pathological states and conditions, which it will counteract more promptly certainly, and perhaps more safely than any other agent at our command. This is the conclusion Dr. Pye Smith arrives at in a paper read before the Royal Medical and Chirurgical Society. He tells us it is especially useful in local congestions, cyanosis, and engorgement of the right side of the heart. He has used it with advantage in cases of miliary tuberculosis, broncho-pneumonia, apoplexy, epilepsy, and uræmic coma; in all cases of which there was this condition of local congestion.

## A UNIQUE VAGINAL ATRESIA.

BY E. J. BOYES, M.D., OAKLAND, CAL.

On the 14th of August, Mrs. H. came to me for relief from pains in the lower abdomen. These being periodical, suggested examination of the uterus. Before doing so, my patient, a young healthy married woman, gave me a history of perfect health till her recent marriage. Since that event, she had suffered from difficulty and distress in coitus, and from this inferred that she

was different from other women. At the time of consultation, she had missed one menstruation, and was complaining of morning sickness, and suspected pregnancy in consequence. On examination, the external parts were found normal. But an attempt to pass the finger into the vagina developed the fact that it was firmly vaulted over in its middle third by a fleshy mass, a partition as it were (and so it proved eventually to be), and about one-half inch in thickness. *Per rectum*, I discovered an enlarged uterus; and on resorting to a speculum to more closely determine the vaginal condition, found it of that darkened hue, dubbed "port-wine color." The inference was that she was pregnant. But *how?* And it was only on a most careful inspection, that a minute central canal could be made out, through which a very fine probe passed with difficulty.

An operation was proposed and agreed to; and the following day a dissection upward defined the bridge, which was carefully cut away, exposing the upper third of the vagina, fairly normal, and the cervix of the gravid uterus in plain view, though smaller, and not distinctly protruding into the vagina, as is usual.

The patient was kept in bed two weeks, and sedatives given to insure local rest, so that now she is in good health, shows no tendency to miscarry, and will probably carry her unique conception to the usual conclusion.

## Selected Articles.

### ON THE INTERNAL ADMINISTRATION OF CALOMEL IN THE TREATMENT OF PSEUDO MEMBRANOUS LARYNGITIS.

Any fixed and definite method, which promises only a modicum of success, in the treatment of membranous croup, must command the respectful attention of every practising physician; in no other acute disease of childhood is the mortality so great; in no other does the hopelessness of the physician's efforts seem so manifest.

The numberless methods of treatment of this disease attest the industry with which physicians have striven to overcome the gradually increasing laryngeal stenosis which has been regarded as its greatest danger.

Venesection, veratrum viride, antimony, the emetics, vegetable and mineral, nitrate of silver solutions (ten to sixty per cent.) locally (Bretonneau and Green), medicated steam inhalations, and numberless drugs newly invented and older ones, have had their warm supporters, who have claimed for their methods a certain percentage of recoveries without operation.

Taking the consensus of opinion of recent years, the most widely popular drug in the treatment has been mercury, in the form of corrosive sublimate, in large doses, with or without the muriated tincture of iron and chlorate of potash; still more recently inunctions with blue ointment have been recommended in the treatment of laryngeal and faucial diphtheria.

It may seem superfluous to mention these different methods, but the object is to show that, after all the varying phases of treatment which an historical survey of the literature reveals, mercury to-day is essentially the drug upon which most reliance is placed by the majority of medical men.

Before speaking of the treatment by hourly doses of calomel, which will be recommended in this paper, the writer would direct attention to the characteristic clinical features of the disease in their relation to the treatment. A child, with or without discernible diphtheritic processes in the pharynx, exhibits the signs and symptoms of so-called "true croup," or laryngeal diphtheria, viz: a low, rasping inspiration; dry, brassy cough; retraction of the soft parts of the chest on inspiration; hoarseness; fever. Each symptom in this complex gradually increases in intensity; the inspiratory stridor becomes louder; expiration also becomes noisy and prolonged; the breathing meanwhile grows rapid, assuming the characteristic sawing sound; cough is more metallic and drier; the retractions become extreme; the hoarseness gives place to aphonia; cyanosis appears. The two factors productive of this condition are the closely adherent diphtheritic membrane and the inflammatory swelling of the mucous membrane and submucous tissue of the larynx.

The membrane, starting at one point, say the posterior surface of the epiglotis, extends to the upper surface of the vocal cords, invades the ventricles of Morgagni, passes on to the vocal bands, and may extend into the trachea and bronchi of smallest calibre; the glottic aperture is slowly encroached upon, until complete closure occurs and death from suffocation ensues; or croupous plugs in the bronchi and broncheoli may so limit the lung capacity that the patient succumbs. This growth of the membrane produces, in addition to the disturbances in the respiratory organs, a gradually increasing carbonic-acid intoxication and infection of the organism.

The growth of the membrane may, on the other hand, be self-limited; and when complete occlusion of the glottis seems imminent, a change in the character of the breathing is noticed; instead of the dry, sawing sound, a moist, fine rāle is heard

in the larynx; the metallic cough becomes moister, softer; the retractions of the soft parts of the chest become less marked; the aphonia gives place to hoarseness. The membrane having ceased to extend, has become disintegrated, soft; suppuration has separated it from the underlying mucous membrane, it has been expelled by the cough, either piecemeal or *in toto*, and slowly but surely a "restitutio ad integrum" occurs in the larynx.

The remedy, which experience has shown to have the effect on the membrane of liquefying or softening it, is therefore the great desideratum; medicated steam inhalations (lactic acid, lime-water, turpentine), and sublimed calomel (Dillon Brown) have been given with this object in view.

Calomel administered internally, in the manner to be hereafter described, has, in my experience, seemed to have this effect; and the results have been so satisfactory, that this method of treatment seems to me worthy of the highest commendation.

To a child under two and a half years, 0.05 of pure calomel is given hourly, sleeping and waking; for each year above two and a half years, add 0.02 of calomel to the hourly dose. A child of five years would therefore take 0.10 of calomel every hour. The calomel must be absolutely pure and undeteriorated; it should be given without the admixture of sugar of milk or of any sugar whatever; it may be administered, either floating on a teaspoonful of water, or if the child refuses this, because he knows it to be medicine, it may be given in milk, entirely unnoticed by the patient.

The case should be under the watchful care of a trained nurse, who must keep an accurate record, noting the slightest perceptible change in any of the characteristic signs; after one or two grammes of calomel have been given, a change in the laryngeal breathing sound should be noticed. The treatment should, and can, be instituted at the earliest possible moment after the diagnosis is made.

The writer has given a child of two and a half years, 0.05 of calomel hourly, until four grammes were taken; the patient recovered. To another child of three and a half years, five grammes were given with success. A stimulating and supporting regimen to combat the sepsis was adhered to—beef soup, white of egg, milk; Tokay wine, or whisky, were administered alternately, at very frequent intervals.

The administration of nourishment and stimulants, half-hourly, to sustain the heart power, is of the highest importance; everything given the little patient should be palatable and easily taken, as every struggle of the child against taking food or medicine increases the laryngeal stridor, and perhaps causes the membrane to extend downward.

The use of mercury in plastic inflammations is one of the traditions of medicine; its praises have been sung by medical writers for more than a hundred years; whether its so-called antiphlogistic properties are explicable by reason of its destructiveness of germ-live, it is not for me to say. The action of calomel in croup, given as above described, bears out the old belief, in actual experience. Under its use I have seen the stridor, the aphonia, the cough, in short all the symptoms, slowly abate, showing that the membrane was gradually loosening its hold and becoming innocuous.

The advantages of calomel over sublimate are self-evident; the former is mild, non-irritating, can be taken for the necessary length of time without any other effect than a passing diarrhœa, perhaps; while the sublimate is a pronounced irritant poison which, taken in frequent doses, will cause pronounced gastro-intestinal irritation, necessitating an interruption in the treatment at a critical period.

The powder of calomel of six centigrammes is small, tasteless, and easily administered to the most obstreperous child; not so with the bichloride mixture, when given hourly. If inunctions with blue ointment have been attended by the success claimed for them in diphtheria, then mercury *absorbed into the circulation* seems to have a controlling influence over the diphtheritic infection, and its local manifestations.

For administration to children, calomel must be preferred to all other preparations of mercury, for reasons that are obvious. The danger of salivation, in my experience, is minimal; I haven't seen a case of ptyalism among the children that I have treated with calomel.

Severe diarrhœa has also been very rare. Three, four, or even five movements a day under the calomel therapy I should consider rather an advantage in this disease, provided the patient take nourishment; the sepsis is, to a certain degree, mitigated by the free action of the bowels.

Should the diarrhœa assume a severe or alarming character, the dose of calomel may be diminished, or the intervals between doses prolonged; or a starch injection, with or without a little paregoric, may be given; and if the laryngeal obstruction seems to be lessening, I would not stop the calomel altogether under any circumstances.

A very strong argument, from a pathological standpoint, in favor of the antiplastic treatment by calomel, or by mercury in any form, is found in the statistics and post-mortem examinations of Prudden and Northrup. In 151 fatal cases, pneumonia was found in 104. In Northrup's article in Keating, in 87 cases, the larynx alone was affected in only one case; in another the membrane extended from the pharynx to the middle of the trachea; between this point and the bronchi of the fourth division nothing was to be found; from these to the finest bronchi, membrane was present; in 34 cases the membrane extended from the pharynx down to the finest bronchi. In view of this extensive growth of membrane, of what use can

an inhalation be? The tidal air, which alone can carry the inhaled medicament, never reaches the finest bronchi; of what use, therefore, is any local treatment? The treatment by sublimed calomel (Dillon Brown) seems to me to be the treatment which is advocated in this paper, but in a different form. It formerly was one of the methods of mercurializing a patient, to volatilize calomel on a metal plate by means of an alcohol lamp. The treatment has the disadvantage of salivating the attendants of the child.

In mercury we have a drug, then, which, absorbed into the circulation, would seem to have a specific effect on the membranous exudation of laryngeal diphtheria; and of all its preparations, the mild chloride for administration to children is the best for easily bringing the system rapidly under its influence.

It is not claimed that recovery occurs in every case, nor am I in a position to bolster up assertions by statistics; favorable statistics would be accepted with incredulity, anyway.

The object of this paper is simply to direct your attention to a specific and definite method of treatment, which, from inquiry, I am convinced is not at all in use among physicians in this city, and which in my practice has proven eminently gratifying in a number of cases; which, if followed to the letter, will fully meet your expectations. Its simplicity, ease of application, the fact that treatment can be instituted the moment laryngeal stridor is noticed, in even the youngest child, are arguments in its favor.

Should the patient go from bad to worse, in spite of the treatment, and the symptoms assume a grave character, recourse can always be had to intubation or tracheotomy; and here I would say, although it has nothing directly in common with my subject, that early operation is to be decidedly discountenanced, be it intubation or tracheotomy. In either case a new danger is added which, in my opinion, may have been, in some cases of early operation, the cause of death.

Recovery from diphtheria of the larynx is undoubtedly possible without an operation, and the child's chance of life should not be jeopardized at the outset of the disease, to satisfy the theory of "early operation." The writer has tracheotomized children apparently at the last gasp, and has saved the life of the patient by the operation. Operation should be the *dernier ressort*. The chance of success in my experience has been just as great in late as in early operations.

A few brief histories may be of interest. In the fall of 1887, Dr. Arnim Fischer called me in consultation to see a baby, two and a half years of age, who had all the symptoms and signs of diphtheritic croup. Two children in the same family had succumbed to the disease a few days previously; the elder, aged six years, had been tracheotomized; the younger, aged four years, had been intubated by other physicians. When the third and youngest child was taken sick the parents determined to have no operation performed. I advised the attending physician to give pure calomel in doses of 0.06 hourly. A slight amelioration of all symptoms was noted after 1.0 had been given. The child recovered, having received 4.0 of calomel in all.

Another case, seen by Dr. A. Jacobi in consultation late at night, was that of a boy, three years of age, who had gray patches on both tonsils, marked sawing stridor in the larynx, with inspiration and expiration. Dr. Jacobi thought intubation indicated. The parents, when I had explained to them the dangers of the disease with and without operation, decided to wait and consented to a trial of the internal treatment. The calomel was given in hourly doses of 0.1. The stridor was slowly overcome, the dry sawing sound in the larynx gave place to the moist flapping of the loosening membrane, expectoration became copious, purulent, and the patient recovered. This patient took 6.0 of calomel in all.

I might relate case after case in which the calomel has not disappointed my expectations, in the treatment of croup, but it would not strengthen the assertions already made in this paper. These cases have been recorded for the purpose of showing how large a quantity of calomel can be taken in divided doses by young children, with impunity. No urgent signs of mercurialism occurred in any of my cases, which would have necessitated a discontinuance of the treatment, nor can I say that I noticed any bad after-effects. It is an argument against all treatment by mercurials, that their deleterious effects on the blood and tissues remain long after the disease for which they are given is past; in my opinion, a drug that promises to rescue a child from the terrible agony of death by suffocation may be given, even at the risk of incurring bad after-effects; there is ample time to treat these later and to get rid of them, but the suffocative attacks of larygeal diphtheria don't allow much time for the consideration of after-effects. The writer considers steam inhalations, in any form, an important adjunct to the treatment.

To sum up, the claims for consideration of this drug, in the treatment of larnygeal diphtheria, are based on the following grounds:

1. Mercury is to-day the one drug upon which most reliance is placed by the medical profession in the treatment of diphtheria; and from the various ways in which it is used with benefit, it probably exercises its good effect through absorption into the circulation.

2. In the experience of the writer the hourly administration of 0.05 of calomel has had, in many cases, the satisfactory result of softening and lique-

fying the diphtheritic membrane, and of avoiding the necessity for operation.

3. The case of administration to children, and the absence of irritation in the gastro-intestinal tract.

In closing, the writer must state that, though this method of treatment is the result of his own thought and experiment, he does not and cannot lay claim to originality, inasmuch as Dr. W. H. Daly, of Pittsburg, in a paper read before the American Laryngological Association in 1886, advocates the same treatment with great enthusiasm. Dr. Daly's paper is very brief, and in reality is simply a statement of his belief in this therapy. He, in turn, makes the admission that he is indebted for his knowledge of this method to Dr. William C. Reiter, who, in 1878, directed attention to it in a monograph "On the Treatment of Diphtheria, Based upon a New Etiology and Pathology;" nor is this the first time that the treatment was given publicity. Sidney Smith, the noted divine and essyist, by the advice of his physician, treated his grandchild for a disease which must have been, from the description, diphtheritic croup, by hourly doses of calomel, and saved its life. In gratitude to the physician he published the method to the world.—C. H. Kohn, M.D., in *Med. Rec.*

## CHRONIC CYSTITIS AND ITS TREATMENT—CYSTOCELE.

As this woman illustrates a condition of not a very uncommon occurrence, I present her to you to-day, and will give you a brief history of the symptoms she complains of.

She is, she says, forty-four years of age, and commenced to menstruate at the early age of ten years. I wish to call your attention to a matter in connection with menstruation, and my own experience bears out the statement that the earlier a woman begins to menstruate, the later she ceases. It is a sign of unusual physiological activity in that particular function. She was married at the age of seventeen and is the mother of eight children. She gives no history of instrumental delivery, but some of her labors have been difficult. She had a miscarriage the centennial year and has not been well since. She passes her water about four times a day and rises only once at night to empty the bladder. This may be nothing more than the result of habit on her part. Her urine, she says, looks like milk.

This woman has been sent to me as a patient suffering from chronic cystitis, but I want you to notice that there is a very evident departure from some of the symptoms of cystitis here, and for that reason it is a good case to show you. A woman may have a chronic cystitis and yet not pass water often, and it seems to me that this is the peculiarity of the female bladder as contrasted with the male. A man with a chronic cystitis is a very miserable object. In many cases of chronic cystitis in the male, you have a deep-seated stricture, perhaps anterior to or in the membranous portion, and blocking up the passage, leading to the development of a cystitis. It may also be due to the presence of stone in the bladder. This is just exactly what does not occur in women. Women very rarely suffer from stone in the bladder, and gonorrhœa very rarely gives rise to vesical trouble. Cystitis in women is generally due to displacement of some kind. The bladder is either drawn down or fixed in an abnormal position, so that she cannot pass her water readily. When that happens, you get decomposition of the urine and chronic cystitis as a result.

I will now see what the physical condition of this woman's pelvic organs is: There is a very fair skin perineum and a well defined fourchette. The sphincter contracts to the touch, showing an unimpaired condition of the external parts. You can notice a gaping of the vulva, and the nymphæ are small. You notice a pyriform tumor, which comes down to the posterior wall of the vulva. The anterior vaginal wall is prolapsed and has dragged down the bladder. As I pass my finger into the vagina I find the cervix has descended almost to the vulva, and as I palpate the abdominal wall there is some tenderness and the patient complains of pain. Now, what is the cause of this tenderness of the abdominal wall? It may be due to the remains of a former inflammation, or it may be the distress conveyed to the swollen parts by increased abdominal pressure. If you were to open that abdomen, you would not find any pathological condition to account for this soreness. I find here a descent of the uterus, and will now proceed to investigate the state of the bladder.

As I introduce the catheter into the bladder and withdraw it, the end of the instrument is marked with blood, and a milky urine has escaped. It is difficult to imagine that this woman has so few symptoms with such evidence of great disturbance. Here is a bladder drawn all out of place, and the urine shows well marked symptoms of chronic cystitis. A great many women with this condition of the bladder have to get well down on their knees and pass their water in that posture, for they find they cannot empty the bladder when they stand up. Do not imagine that because you get blood when you pass an instrument in this way, that it is due to a papilloma or malignant disease of the bladder. As a rule, it is due to a polypus or a caruncula of the urethra; but above all, to a chronic cystitis, in which you have a velvety mucous membrane

which bleeds on the slightest touch. The most of the symptoms this woman complains of come from the bladder.

The treatment of this, then, resolves itself into rectifying the displacement. I think we could promise her almost immediate relief if she were to remain in a hospital, by keeping the uterus up in position and washing out the bladder. But what can be done for an ambulant patient like this woman? I should not proceed to operate at once, but reserve that procedure for a later period. In the first place, I should try tamponing the vagina, using a fifty per cent. solution of boro-glyceride, with a five per cent. solution of chloral. There is nothing that I know of better for overcoming the congestion of the parts, and chloral is decidedly a local anæsthetic. It is also an excellent antiseptic. This will give her some relief. I would next wash out the bladder with a weak solution of boracic acid, or with Thiersch's solution, which is an excellent bladder wash. You can use Thiersch's tablets, which are sold in all chemists' shops and which are very convenient. These cases are usually a good deal relieved, if there has been congestion and bleeding like this, by the administration of salol in five-grain doses three times a day, which will improve the con dition of the urine. If there is a great frequency of micturition, with a local congestion, you may try the effects of belladonna, which in some cases does give relief.

After the tampons have been used in this way for a week, you will see that the symptoms are all changed and there will be less local irritation. Then I should try to support this prolapsed uterus by means of a suitable mechanical pessary. I would first use a soft ring of some kind, and while I do not use half a dozen pessaries a year, in a case like this I consider one advisable. After a time when the irritation is considerably diminished, I should then do an anterior colporraphy, and the simplest operation is the oval or circular one. This has proved the most satisfactory one to me. One thing is important—in all colporrhaphies do not go too high near the urethra.

The after treatment is a matter of some consideration. You will have to put in a wool tampon or iodoform gauze, and draw the water about once in four hours. Use the greatest possible care and do not allow the urine to accumulate until the wound is well united, for by doing so you will negative the result of the operation. This treatment is as important as the operation itself.—G. M. Tuttle, M.D., in *Internat. Jour. of Surgery.*

---

Cantani, the great author and teacher, died May 1st, of nephritis, at Naples.

2

## THE INFLUENCE OF THE ERECT POSITION ON THE DEVELOPMENT OF THE HUMAN BODY, AND ESPECIALLY OF THE BRAIN.

After a few introductory remarks on the scope of anthropology, Dr. Munro proceeded to deal with the following propositions:

1. The mechanical and physical advantages of the erect position.

2. The differentiation of the limbs into hands and feet.

3. The relation between the more perfect condition of these organs and the development of the brain.

The primary object of locomotion, he said, is to enable the organism to seek its food over a larger area than is attainable by a fixed position. In the higher vertebrates this is accomplished by means of the well-known mechanism of four movable limbs capable of supporting and transporting the animals. As these quadripedal animals became more highly differentiated in virtue of the struggle for existence and the necessities of their surroundings, the limbs became modified in various ways so as to render them suitable for various kinds of locomotion, and for other purposes in the animal economy. The anterior limbs have been specially subject to these changes, but man alone has been able to divert them altogether from their primary function. This has resulted from his attaining the erect position, which has necessitated a complete division of labor in the functions of the limbs, the anterior pair having become restricted in their use to manipulative and prehensile purposes, while the posterior have retained their original function of locomotion. Coincident with this notable specialization in function of the limbs a new field for advancement was opened to man, in which intelligence and mechanical skill became the leading factors in his further development. The maintenance of his body in the erect position has necessitated great changes in its structure, not only in the osseous system, but also in the soft parts. In the distal segments of the limbs the most remarkable changes took place. The changes which have occurred in the foot to make it the perfect mechanism for progression that it is, as well as an efficient basis for supporting the weight of the body, were then enumerated. The modifications which the hand has undergone are quite as radical, but in an entirely different direction, namely, towards rendering it capable of performing the most delicate and intricate prehensile movements. The possession of such a perfect piece of mechanism at the extremity of a movable arm attached to the upper part of the trunk gives man a superiority in attack and defence over all other animals.

Moreover, he possesses the power of performing a variety of movements, and of assuming attitudes and positions eminently adopted to the exercise of his manipulative skill, by which he is able to counteract the superior brute force of many of his antagonists. All his morphological peculiarities have been brought about without the destruction of any of the primary and typical homologies common to all the higher vertebrates.

It is, however, the intellectual and psychical manifestations of the brain—the organ of the mind—which gives to man's life functions their most remarkable character. We are forced to the conclusion that conscious sensation invariably takes place by means of nerve cells, whose functional activity requires to be nourished in precisely the same way as the muscular force required in walking. The brain is a dual organ, consisting of a double series of distinct ganglia, and connected to some extent by a complex system of nervous tissues not only with each other but with the central seat of consciousness and volition. In reflex action the efferent message is often under the control of volition, which may prevent the motor action from taking place, and can affect a similar movement *de nova* without the direct intervention of external impressions, and it has been proved that the volitional stimulus regulating movements of the body starts from definite portions of the brain. This shows that the homology which characterizes the structural elements of animals' bodies extends also to their brains, and the law which differentiates animals according to the greater specializations of function has its counterpart in the brain; an increase of brain substance is naturally expected therefore whenever the functional activity of a specific organ is extended. That man's brain and his intelligence are correlated to one another is well-known. A question of much interest is to account for the evolution of so large a brain under the influence of existing cosmic forces. Dr. Munro stated his belief that it is the result of natural laws, and that one of the main factors in its production was the conversion of the upper limbs into true hands. From the moment man recognized the advantage of using a club or a stone in attacking his prey or defending himself, the direct incentives to a higher brain development came into existence. Acquaintance with the mechanical powers of Nature would gradually extend, and there would also be a corresponding development of his reasoning faculties. Particular sounds would be used to represent specific objects, and these would become the the first rudiments of language. All these mental operations could only occur through the medium of additional nerve cells, hence the brain became more bulky and complex in its structure.

On the question as to whether natural selection has been sufficient to account for the great growth of man's brain, the ideas of Huxley and Wallace were discussed, and the conclusion arrived at was that the higher development of humanity is nothing more than the gradually acquired product of the reasoning faculties themselves. The reasoning power of man is virtually a higher intelligence, which has to a certain extent superseded the laws of natural selection. A note of caution was sounded regarding the inferences to be drawn by comparing the weight and mass of the brain of animals and man. Evidence was brought to show that probably savage man is in a more degenerate condition than his forefathers, who originally acquired higher mental qualities under natural selection. This would account for the savage possessing a brain greatly in excess of his requirements.

On the supposition that at the start the evolution of man's hand and the development of his sensory faculties were synchronous, the question arises, When, where, and in what circumstances did it take place? Imperfect as are the materials to answer it, the osseous remains yet found indicate that during the quaternary period he had already acquired his human characteristics; this throws our search back to the tertiary period for his appearance in Europe. His corporeal structure shows that he has passed through a stage when his limbs were adapted to arboreal life. In the gradual lowering of the subtropical temperature which occurred in Central Europe and Asia during the eocene and plicene periods and culminated in the great Ice Age, also in the concurrent changes in the distribution of land and water, there exist such conditions as would have necessitated a change in such arboreal habits and even his form. During this early and transitional period might was right, whether from strength of arm, skill of hand, or cunning of brain; the weak would succumb, and ultimately there would survive only such as could hold their own.—Robert Munro, M.A., M.D., in *Br. Med. Jour.*

## THE SUBCUTANEOUS INJECTION OF SALT SOLUTION A SUBSTITUTE FOR THE INTRAVENOUS METHOD; REPORT OF CASES AND A SIMPLE APPARATUS.

In a number of cases of collapse seen during the past three months of my hospital service, sterilized salt solution was used subcutaneously instead of intravenously. A large-sized trocar of the aspirator pattern with a stopcock and entrance on the side, about six to eight feet of rubber tubing, and a hard-rubber funnel was the apparatus. The funnel and tubing after being sterilized were kept in corrosive sublimate (1-1000). The trocar was kept sterilized in a tin box. The sterilized salt

solution was kept at a strength of twelve parts to the thousand, so that when needed the addition of an equal amount of boiling water made it of the proper strength and temperature for instant use.

The following cases were all grave emergencies from hæmorrhage or shock :

Case I.—Brought to hospital with a stab wound through the popliteal vein. When first seen had no pulse, was blanched, with a sighing respiration and cold extremities. Three pints of hot salt solution were injected under the skin of the abdomen and thighs. The time of preparation taken was only that needed to scrub the skin and add boiling water to the solution. The pulse responded almost at once, and twenty minutes after the injection was good. The case fully recovered.

Case II.—Internal hæmorrhage from ruptured kidneys and spleen. Four hours after entrance unconscious, cold extremities, blanched and pulseless. Three pints of hot salt solution injected into inguinal regions and thighs, resulting in rapid improvement of the pulse. The man regained consciousness and talked with his friends for an hour, but after this slowly failed, and died during the day. In this case the improvement in the pulse and mental condition was surprisingly lasting.

Case III.—Marked signs of internal hæmorrhage, pulse almost imperceptible, blanched, unconscious. A quart of hot salt solution injected, giving fairly good pulse and return to consciousness for half an hour; but after this he became again pulseless, and died.

Case IV.—Railroad accident. Crush of lower leg, with evident marked loss of blood. Pulse very faint and rapid, cold extremities. A quart of hot salt solution was injected (after vigorous stimulation with digitalis, atropine and strychnine had failed to cause reaction), and resulted in rapid improvement ; eventually he recovered sufficiently for a successful amputation.

Case V.—Severe abdominal operation for fibroid with profuse hæmorrhage followed by collapse. A quart of hot salt solution caused rapid improvement, and the case ultimately recovered.

Case VI.—Both legs crushed in railroad accident. Condition of extreme shock, not reacting to vigorous stimulation. Three pints of hot salt solution under the skin caused steady gain. Pulse became fairly strong, the face regained its color, and the improvement lasted for three hours, though ultimately the man died.

The advantages of this method are its simplicity and the rapidity with which it can be done. The pressure of from four to six feet is enough to make the fluid run freely. In the above cases the loose skin in the inguinal regions was selected, and the assistant stood on a chair or table holding up the funnel which he kept filled with salt solution from a pitcher. The inguinal regions took from ten to twelve ounces, and the outside of the thigh somewhat less. The fluid always ran rapidly, and was absorbed with astonishing rapidity. The effect on the pulse was not quite as soon noticed as if the solution had been thrown directly into a vein, but improvement began in every case before six ounces had been injected, and was after that as marked and as lasting as in the intravenous method. The two or three minutes wait for a response was more than offset by the saving of time in the technique as compared to opening a vein.—Dr. Cobb, in *Boston Med. and Surg. Jour.*

## ENURESIS DIURNA.

In the *Amer. Pract. and News* Dr. Simpson says : I have in the past four years come in contact with quite a number of cases of day-wetting, and one or two I have failed to treat with as much satisfaction as I would like. I have tried any number of drugs, and failed. A child who is not relieved by the ordinary drugs has a cause for his incontinence that is worse than the incontinence, and that is masturbation ; and you will find when you treat him for mastubation that he gets well. You must keep a close watch on him, for he is so sly, and will repeat the act as soon as the blisters heal. You must have complete control over your patient or you do him no good. If you make close inquiry of the mother, you will find that she frequently catches the child rubbing the parts, and this results in an erection, and immediately you find the little fellow has made water. He is unconscious of the desire until he finds that his water is trickling down his leg and his clothes are wet. You find that the majority of these patients play with the parts. The question of masturbation is becoming quite a serious one for the physician to cope with and experience brings this question up quite often during the year.

The constant irritation of the parts by self-abuse leads to chronic inflammation of the whole prostatic portion of the urethra and the neck of the bladder, which is very sensitive.

My experience with these cases is that I find this condition to occur in children from five to eight years of age. I speak only of that class that are free from the trouble at night, and suffer during their waking hours. I have found tight prepuces in two cases, and they were circumcised with relief, so long as the wound did not heal, and as the parts were well, why they would return to their old habits. In both cases I blistered along the dorsum of the penis and down on the perineum. I found, as long as I kept the blister from healing, that they did not suffer from the incontinence and for some time afterward brfore they had any

return, and then they began their old habits of playing with the parts, and the incontinence returned with the same regularity as before the blistering. I had to repeat the blisters on one three, and the other four times before I controlled the trouble, and as it is now four months since either one has suffered from any trouble of that character, I do not question in either of these cases but the cause of the incontinence was masturbation. And I based my belief upon the fact that the mothers of both of these boys would catch them playing with the parts, and almost immediately following they wet their clothes, and one mother told me that she found the little fellow frequently with an erection when she caught him playing with the parts. You find that these children are exceedingly nervous little fellows. They have loss of appetite, seem to be debilitated, and show some mental hebetude.

In regard to treatment, will say that I have gone all the way down the list, and find that these intractable cases that you can not do any thing for them, except the frequent blistering, and it must be persisted in until you give them relief. I have the first case in which to see it fail, while circumcision, atropia, rhus aromatica, and all the drugs that are said to do good, in a great number of these cases, fail signally in giving more than temporary relief.—*Maryland Med. Jour.*

## THE PUNISHMENT FOR THE CRIME OF PRODUCING ABORTION.

This crime has been particularly rampant in this city in the past year. A statement of the punishment accorded to it in various countries of Europe may therefore prove interesting. In England and Ireland the punishment is penal servitude for life, or a less term. Should the mother die, the crime becomes murder, which may be punished by death. In Scotland (says *The Lancet*) the punishment is arbitrary; in France, Spain, the German Empire, Austria, Hungary, Italy, Russia, Norway, Sweden, and Denmark—in short, throughout the whole of Europe—the crime is punishment with imprisonment for from six months to twenty years, or for life. In Sweden the penalty is death if the mother dies; and in Russia the mother, if a consenting party, may be exiled to Siberia; in the Dominion of Canada the penalty is imprisonment for life; in Nova Scotia, Quebec, Ontario, British Columbia, and in Prince Edward Island it varies from imprisonment for two years to for life; in New Brunswick the penalty is death; in Australia and New Zealand the punishment is very severe, ranging from two years' imprisonment to penal servitude for life; in the United States it is punished with fines ranging from $100 to $5,000, wieh imprisonment for long periods, and with death.

There is, as will be seen, a very general unanimity of view regarding the high degree of criminality of the practice. Despite all this, the crime is increasing both in our country and in Europe. There is no doubt that this is due to the fact that many more women than formerly know of the possibility of abortion and refuse to accept the consequence of indiscretion or the responsibilities of maternity. There is but one way to look at it, however—abortion involves the destruction of one life and danger to another. Hence it is a crime never to be justified even under extreme circumstances.

It is true that many obstetricians still regard the induction of premature labor, even before the infant is viable, as a necessary measure in certain very rare cases. But the indications for it are becoming more and more restricted as medical science advances, and it is not improbable that the time is near at hand when the operation will no longer be thought of as a means of saving life. This legitimate obstetrical procedure, however, has nothing in common with criminal abortion, and medical men owe it to the community as well as to their profession to assist in limiting the work of those whose trade is infanticide. The daily papers could, doubtless, do more than any other agency toward abolishing the crime if they would consent to give up the small fees they get for advertising this class.—*Med. Rec.*

Varicose Ulcerations of the Rectum and Anus.—In the *Revue de Chirurgie*, Quénn writes on this subject. No other mucous membrane is so frequently the seat of ulceration as that of the ano-rectal region. Ulcers here may occur in the course of a general affection, as tuberculosis, dysentery, syphilis, Bright's disease. Perhaps more frequently they result from purely local causes, such as soft chancre, mechanical obstruction, or disintegration of a neoplasm. Besides these symptomatic, constitutional, and venereal ulcers, a variety is met with that merits the title "simple ulcers of the rectum."

Simple ulcer is most frequently limited to the region of the sphincter; at times, however, it may be situated higher in the rectal mucosa. The most common of the simple ulcers in the sphincteric region is the ordinary fissure-in-ano. Along with this may be classed the irritable and painful ulcer of Allingham, and the varicose ulcer. According to Allingham, irritable ulcer differs from the simple variety by being round in shape, and by the high situation of the former, which may even be within the internal sphincter. Chronic varicose ulcer was first described by Rokitansky. It is always found in connection with hemorrhoids. In this variety there is less thickening of the borders and less pain than in fissure.

A person suffering from hemorrhoids is more prone than others to fissure, which may develop into a true ulcer. In women, exploration of the rectum is facilitated by introducing one finger into the vagina and pressing downward. As a further assistance the patient may be asked to bear down.

In simple ulcer above the sphincter, the lesion is round, the edges are thickened, the base unequal and red, and very vascular. The varicose ulcers are divided into the irritable and the non-irritable. The irritable variety includes the round ulcer, the painful and irritable ulcer of Allingham, and the more common fissure-like ulcer. The symptoms closely simulate those of fissure. The non-irritable variety includes the superficial ulceration of the mucosa, the small round ulcers, supra- or infra-sphincteric, and the larger ulcer of the margin of the anus, of Péan and Malassez. These are most common in middle and later life. The primary round ulcer is more particularly observed in the aged. The non-irritable varicose ulcer presents three principal symptoms: sensory disturbances, the discharge of mucus more or less purulent, and hæmorrhage. The latter is the most important of these, and is at times profuse. The diagnosis depends upon detecting the presence of the ulcer, and determining its exact nature. Digital examination will detect a painful area. It is necessary to employ the speculum for ocular examination.

Syphilitic lesions of this region may belong to the primary, secondary, or tertiary stages. Hard chancre presents its usual characteristics. The lesions of the secondary period are mucous patches, and of the tertiary period, ulcers; the latter is rarely observed. Tubercular ulcers have been observed as primary lesions and as secondary to pulmonary disease. According to Ball, they present large lesions in the rectal or ano-rectal mucous membrane; they are irregularly rounded and elongated in the vertical diameter; the borders are irregular and raw; the mucous membrane in the neighborhood is infiltrated and thickened.

The treatment differs with the seat and variety of the lesion. For fissure, the usual treatment suffices. Round ulcers of the margin of the anus require topical applications; they may be cauterized and dressed antiseptically or excised. Superficial erosions may be excised or cauterized. Supra-sphincteric ulcers require the galvano-cautery. Anæsthesia is necessary, and the use of the Sims speculum to give access to the lesion. Boric-acid lotions and iodoform tampons may be used in the after-treatment, and antiseptics, such as naphthol, administered internally.—*Amer. Jour. of Med. Sciences.*

Auto-intoxication from the Gastro-intestinal Tract.—In a communication recently presented to the Vienna Medical Club, Katz, *Wiener medicin. Presse*, undertakes to point out the inadequacy of the assumption that the many symptoms presented by individuals suffering with chronic affections of the stomach and intestines depend upon auto-intoxication from the gastro-intestinal tract, and defends the view that ascribes these symptoms to mechanical and reflex influences. The argument is as follows: Among the products of abnormal gastric fermentation butyric and lactic acids are not generated in quantities large enough to produce symptoms of intoxication, as the organism upon which their development depends cannot survive in strongly acid solutions. Even in the case of a greatly dilated stomach the dilution is so great that no harm results from the presence of an excess of acid. That the lactic acid formed and taken up by the system is disintegrated is indicated by the fact that the acid does not make its appearance in the urine. The same applies to butyric and acetic acids. Even in cases of hyperchlorhydria the concentration of the acid is not sufficient to cause intoxication. Basic products would not be produced in the stomach unless there were a marked deficiency of hydrochloric acid. Salkowski has shown that the peptotoxin of Brieger (which is but feebly, if at all, toxic), is not generated if pure reagents are employed and if accidental putrefaction is guarded against. In the intestine, likewise, the fatty acids and the aromatic products, the phenols, indol, and skatol, are developed in but small amount. The aromatic bodies would have a tendency to exert an antiseptic influence. Ptomaïnes have seldom been found in the fæces, and it is more than probable that they are never formed in the healthy intestine, as they have hitherto only been found in states of abnormal or unusual nitrogenous metabolism, such as occurs in connection with cystinuria, and in case of grave infectious diseases, such as cholera. Thus far, chemical investigation has failed to furnish evidence of the occurrence of auto-intoxication from the gastro-intestinal tract. The varying toxicity of the urine is not more demonstrative, and clinical evidence is likewise not more convincing. The transient sense of fatigue, the dyspnœa, the palpitation, the vertigo are readily to be explained by mechanical and reflex processes, for these symptoms usually bear some relation to the ingestion of food and the processes of digestion. This view receives support from the fact that the symptoms occur especially in neurotic persons, and largely in women. Therapeutically, also, the best results are not obtained from the administration of antiseptics, but rather from agents that stimulate peristaltic activity.—*Am. Jour. of Med. Sciences.*

Paget's Disease of the Nipple.—In 1874 Sir James Paget described a peculiar condition of the breast characterized by superficial excoriation be-

ginning at the nipple and gradually invading the surrounding skin, resistant to all treatment, and usually associated with a carcinomatous mass in the other breast. The exact nature and cause of this malady has been the subject of much speculation and investigation, some advocating the view that it is nothing more than an unusual form of epithelioma, others accepting Darier's theory that it is a parasite disease caused by a micro-organism of the psorospermiac type, Darier having observed structures resembling psorospermiæ in cases of the disease. A pronounced case has recently been described by Schulten, *Nordiskt medicinskt Arkiv*, Professor of Surgery at the University of Helsingfors. A woman, sixty-nine years old, had for fifteen years suffered from a superficial moist excoriation of the right nipple and breast gradually spreading until two or three square feet of the skin of the right side were involved. A tumor removed eight years ago from the same breast showed the structure of ordinary glandular carcinoma. The axillary glands were not affected. Histological examination of the ulcerated tissue showed decided proliferation of the epithelial elements of the skin, but no penetration of the subjacent tissue, and many of the parasitic (?) forms described by Darier, both in and between the cells. Psorospermiæ were also found in the deeper cancer. Schulten considers the clinical picture presented by Paget's disease to be quite different from that of ordinary epithelioma, because of its softer consistence, its lesser tendency to ulceration, and the non-invasion of the subjacent tissue, though he admits that the microscopical structure closely resembles that of epithelioma. The presence of the so-called psorospermiæ is not conclusive, as they have been found in both conditions. He believes, therefore, that Paget's disease, though not identical with the ordinary epithelioma of the skin, is closely allied to that affection, and cites the varieties of tuberculosis of the skin in illustration. —*Amer. Jour. of Med. Sciences.*

Recurrence of Carcinoma of the Breast.—Doubtless every practitioner who has had any considerable experience in the removal of carcinomatous tumors of the breast has had occasion to be discouraged with the results of the operative treatment, however thorough this may have been. Early and complete extirpation of the growth removes the local disease, but does not remove the susceptibility or predisposition to the disease; and surgeons always speculate as to the length of time a patient on whom they have operated for ablation of a cancerous tumor will enjoy immunity from the disease.

Dr. Frederic S. Dennis, of New York, who has made an exhaustive study of the subject, affirms that surgical interference can prevent recurrence in 90 per cent. of the cases, if, in addition to the complete removal of the breast, the axillary glands and fatty tissue are also removed. He says the liability to recurrence is reduced by an early diagnosis and operation, and that in a large majority of cases the diagnosis can be made before glandular infection has taken place; he adds that if within six months from its incipiency the tumor is removed, together with the axillary glands, fatty tissues, pectoral fascia, perimammary fat, and paramammary arcolar tissue, the chances of recurrence will be small. The operation should be so thorough as to leave out of consideration altogether the question of flaps to cover the wound.

Dennis reports a series of seventy-one cases in which he performed the complete operation, with no mortality. The radical operation removes cancerous cells that form the foci for recurrences. These cancer cells may be found outside the limits of the breast gland, lodged in the adjacent mammary region, whither they have been carried by the lymphatic current. Cancerous masses have been found upon and in and under the pectoral fascia, as well as in the neighboring muscles. Here removal of the breast is inadequate to remove the entire disease.

The recurrence of carcinoma of the breast is influenced by the histological character of the carcinoma itself. According to Dennis, the more typical the structure, the better the prognosis—the more atypical the structure, the more unfavorable the prognosis. The appearance simultaneously of carcinoma in both breasts—a condition which exists in 5 per cent. of all cases—also affects the chances of permanent recovery. There seems further, as Dennis shows, to be less malignancy in carcinoma affecting the early stages of obsolescence of the gland than when the gland has fully completed its degenerative changes. In other words, the prognosis is more unfavorable for old people than for persons in the full vigor of life. "The nearer the gland is to a healthy functional activity, the less likely is it to assume malignancy."—*Med. Age.*

Sir Joseph Lister on Antispesis.—Recently Mr. Lister announced his views and described his practice with respect to surgical intisepsis. In it we witness a departure from troublesome and complicated methods and a return to the simpler. In the first place, he has now practically abandoned the once necessary bichloride of mercury. It has been found by experiment that the tubercle bacillus is much less capable of resisting a carbolic than a bichloride solution. The sponges, the instruments and the field of operation are cleansed and sterilized in a carbolic solution, generally five per cent. For absorbents, Mr. Lister still employs sponges, though the latter are regarded by many as the frequent carriers of septic organisms. Sterilized tissues, such as gauze and cotton, have

less absorptive capacity, and cannot take the place of sponge. His sponges are first washed with soap and water; then with soda; then washed again and dried; and then steeped in a five per cent. carbolic solution, when they are ready for use. After an operation the sponges are placed in a tank of water, and the fibrin clinging to them allowed to putrefy. They are then thoroughly washed and put away in the carbolic solution.

Mr. Lister thinks it entirely unnecessary to keep the skin soaked in an antiseptic lotion for several hours previous to an operation. To cleanse the parts he used simply the five per cent. carbolic solution; he does not even use soap and water. Carbolic acid has a greater affinity for the epidermis than corrosive sublimate, combining in all proportions with the fatty matters of the same. The elaborate methods of sterilizing instruments by boiling are troublesome and unnecessary. In his own practice he begins to place his instruments into the carbolic solution just as the patient is brought into the room. By the time all the preparations (including anæsthesia) are completed, the sterilization is accomplished. Iodoform continues to be the best antiseptic application, though it seems to have little effect upon the development of bacteria. Its potency seems to be due to its chemical action upon the products of the bacteria. Iodoform is specially valuable in the interior of wounds. An external dressing of iodoform gauze, when it becomes solid with wound discharges, will not prevent the development of bacteria.

The perfect external antiseptic dressing should have these four qualities:

1. It should contain some thoroughly reliable antiseptic ingredient.
2. That substance should be of such a character as not to be dissipated to a dangerous degree before the dressing is changed.
3. It should be unirritating.
4. It should be a good absorbent of discharges.

Sir Joseph has found the double cyanide of mercury and zinc to meet these indications better than any other agent. It is a significant point that this great apostle of antisepsis is returning from the complicated and cumbersome methods to the more simple. The results which he now gets are said not to be surpassed by those who observe antiseptic precautions the most rigid.—*Atlanta Med. and Surg. Jour.*

NEURALGIA.—A most interesting study, even from a practical or therapeutical stand-point, is that of the true seat of neuralgic pain. The entire subject can be reduced to a single question. Is the pain of the different forms of neuralgia really originated at the very spots at which the patients complain of it, or is it simply felt at those spots as though it arose there, in the same way, for instance, as patients who have undergone amputation of a limb, still complain of pain in the stump although the limb, which was the seat and sole cause of their suffering, has been removed? The former hypothesis seems probable *a priori*, and has given rise to the so-called peripheral theory of neuralgia; but a number of neuropathologists, and among them some very eminent men, defend what is known as the central theory of such suffering. Although there can be no doubt that the latter theory is not applicable to all cases, still it accounts for the greater number of them, and is based on arguments that are well fitted to carry conviction, and of which the principal ones are the following: When a nerve has been completely severed, as is sometimes done in cases of neuralgia that defy all treatment, it is not uncommon to find the pain going on unchanged after the operation; it could not, therefore, have had a peripheral origin. Just as no one disputes nowadays the existence of nutritive disorders in hysteria, in the same way no one can deny that in certain forms of neuralgia, without neuritis, the same kind of disorders may arise. Now, is not the most rational way of explaining these disorders that of granting the central theory of neuralgia? Under these circumstances it is easy to see that the morbid irritation extends from the original nucleus of the diseased nerve to the original nuclei of the neighboring nerves, which will manifest their implication by creating nutritive disorders *loco dolenti*.

In the third place, a number of diatheses, and certain altered conditions of the blood, give rise to neuralgic pains; unless we admit that the spine is affected primarily, how can we understand why these diatheses and modifications of the blood should affect one nerve more than another, and, in some cases, only a few centimetres, or even millimetres, of a given nerve?

Fourthly, it is known that neuralgic pains are connected very closely in different ways with hereditary neuroses. Now, the latter are undoubtedly localized in the nervous centres; how, therefore, could their effects be other than central? The theory of the central seat of neuralgic pains explains (and is the only theory that does so) the way in which such pains jump from one spot to another, alternate from one side to the other, and pass rapidly from this nerve to the next. We know how near to each other in the spinal cord are the original threads of the different nerves, and can consequently understand with readiness how the painful irritation of one nerve can extend with the greatest ease to its neighbor in the spinal cord. After all, the daily practice of medicine supplies the central theory of neuralgic pains with a decisive argument. It is a matter of common occurrence that cases of neuralgia of the trigeminal, sciatic, or superficial nerves, that have stubbornly resisted the action of the various local

anæsthetics and different forms of counter-irritation, disappear as if by magic after only a few days' use of bromidia. This extraordinary result is readily explained by the well-known physiological effects of the active elements of bromidia. Purified brom. potass. and chloral, cannibis indica, and hyoscyamus; for it must be remembered that they act on the cerebro-spinal centers. Therefore, in the great majority of cases, neuralgic pains have a central origin; and in this is once more verified the truth of the old Hippocratic axiom, "*Naturam morborum ostendunt curationes*," by the use of a preparation that is now so well known as to no longer require any praise—bromidia.—Dr. Dujardin-Beaumetz, in *Bulletin General de Therapeutique.*

Treatment of Syphilis.—I have surely not the intention, in this correspondence, to speak to you of the last work of Professor Fournier upon the treatment of syphilis. It is a book to have, and one which one can scarcely analyze. Its appearance has freshened an old quarrel. It is well known that Professor Fournier believes that we must treat methodically and preventively every primary and secondary syphilis. Usually he prescribes to a patient who comes to see him at the beginning of his syphilis, a course of proto-iodide of mercury, in daily doses of six centigrams, to be taken for at least two months. Then this treatment is suspended for a month to six weeks, after which, no matter what has happened, whether the patient has or has not shown new developments, he has him take up the treatment by the proto-iodide again for about six weeks. Then there is a new period of repose for two or three months, renewed administration of the proto-iodide, new repose, and thus on until the third year of the disease. At this time he gives iodide of potassium in daily mean dose of three grams, during periods of from one month to six weeks, separated by intervals of rest, growing gradually longer as the time from the commencement of the disease increases. His treatment is thus a systematic one, very prolonged and intermittent. On the other hand, there are syphilographers in France, and Dr. Diday, of Lyons, is their venerated chief and dean, who maintain that we must never treat a syphilitic excepting when visible manifestations are present; that we must cease the impregnation with mercury as soon as there are no longer manifestations of the disease, for, according to their view, mercury has no anti-syphilitic action in a preventive sense. This is the method called *opportuniste.*

You can understand how this debate is vigorously contested, and how important a thing it is that the question should once and for all be definitely settled. The appearance of Professor Fournier's book immediately called out the publication of an answer, in which Dr. Diday refutes the arguments of his adversary, and in which he shows, in the most spiritual manner, how, with a little dexterity, one can take the opposite side of any question and make statistics serve the purpose of proving any opinion. After reading most of the documents which have appeared on this point, one arrives at the conclusion, truly deplorable, that one cannot form a firm conviction, and that the two opinions are defensible, although, according to our views, that professed by Fournier seems to repose upon a more scientific base. However, in reasoning from another point of view, it seems to us that, when in doubt, one should not abstain from treatment, since the doses of medicine that are given at the present day are, in the immense majority of cases, in no wise injurious, and they should be continued with; for, if they are omitted, severe accidents may occur, and there will be no excuse.—L. Brocq, in *Jour. Cutaneous Dis.*

The Varieties of Vertigo.—Dr. Mills, in the *Philadelphia Polyclinic*, speaks of five kinds of vertigo.

1. Vertigo dependent upon intracranial disease, chiefly tumor and pachymeningitis, but not including under this general head the disturbances of equilibrium arising from disease of the cerebellum or corpora quadrigemina. The three most frequent general symptoms of intracranial tumor are headache, nausea or vomiting, and vertigo; and these are commonly dependent upon the same mechanism. Most cases of brain tumor originate in the membranes of this viscus; the trigeminal nerve has a wide distribution in the dura, and intense localized irritation of its branches gives rise directly to pain and indirectly to nausea, vomiting and vertigo. The deep nucleus of this nerve is closely related in position to the nuclei both of the pneumogastric and the auditory nerves, and the reflection or irradiation of powerful impressions from the former to the latter will cause vomiting and vertigo.

2. Ocular vertigo, which may spring from several conditions, but is most commonly due to serious disorders of refraction, to paresis or spasm of the ocular muscles, or to excessive retinal irritation. In any case the cause of which is obscure, the eye should be carefully considered and its defects corrected. Partial tenotomies and exact corrections, or re-corrections with glasses have been found efficient, particularly in some of the milder but none the less annoying vertigoes.

3. Vertigo due to disease of blood vessels, as anterior sclerosis, from alcohol, syphilis, gout, old age, etc. The diagnosis of these cases is to be made by excluding carefully ear, brain, eye, severe local disease anywhere, toxemias, etc., but chiefly by a careful examination for arterial or arterio-capillary fibrosis and the accompanying conditions

of the heart, kidneys, liver and other organs. Reedy, resisting arteries, excessive arcus senilis, changes in the pulse rate, reduplicated or clanging cardiac sounds, and other well-known phenomena, will be present.

4. Vertigo which has its source in the state of the blood, under which general head are included those forms of the affection arising from anemia or hyperemia, lithemia, and a large variety of toxemias, and from the direct action of drugs and poisons.

5. Vertigo dependent upon intense irritation reflected to the labyrinth or brain from more or less distant regions of the body—commonly classed as nasal, pharyngeal, laryngeal, gastric, intestinal hepatic, uterine, ovarian, etc. The reflex origin of these] vertigos is often doubtful; they are more probably due to a toxic state of the blood, which is produced in various ways.—*Med. Rev.*

Angina Pectoris.—Burney Yeo, *Practitioner*, thus summarizes the therapeutic indications:

1. Maintain nutrition, avoid strain.

2. Relieve dyspepsia, flatulence and constipation.

3. Forbid cardiac toxines, as tea, coffee, tobacco, alcohol, and all substances developing toxines in the bowels.

4. Remove gouty and other dyscrasias.

5. Increase cardiac tone and lessen tendencies to degeneration.

6. Relieve paroxysms by sedatives and (or?) stimulants.

For the fifth indication, iron, digitalis, arsenic or strychnine may be given in appropriate cases. Gout and vascular degeneration require iodides; malaria calls for quinine; while cocaine has been recommended to prevent the attacks.

For the paroxysms, the nitrite group is useful, even when no vaso-motor spasm can be demonstrated. Diffusible stimulants, the ethers, ammonia or brandy should also be given at the onset. Cold feet should be put in hot water. Balfour, if the nitrites fail, resorts to chloroform inhalations, pouring the drug upon a sponge in a smelling-bottle. In severe and protracted cases morphine hypodermics in moderate doses. Ethyl bromide has been inhaled. Flying blisters are of value for chronic aortitis, involving the cardiac plexus. Galvanism to the vagus and to the intercosto-humeral, if there is an aura in the hand, is useful in preventing attacks. Leeches to the sternum and repeated small venesections have also been found useful.

Note.—As Anstie claimed quite positively that chloroform inhalations would result in death, this remedy should be given with extreme caution, and only when the other anesthetics are not available. Counter-irritation to the vagus in the neck, with some quickly acting rubefacient, has proved quite useful in several cases. Those who have obtained relief from these applications will find the "crystallized liniment" cones made by Wyeth simply invaluable, as they can be carried in the pocket and applied instantly.—*Times and Reg.*

The Binder in Childbed.— Windmüller, *Centralbl. f. Gynäk*, recently opened a long and instructive discussion on the management of normal labor and childbed. He had conducted over a thousand labors in private practice alone in the course of thirty years. He wraps flannel round the body, but objects to the abdominal binder, which he finds interferes with the functions of the intestines, checks involution of the uterus, and is in the way during ablution. For the first three days he limits diet to milk, bread and butter, rice, spinach, potatoes and fish. He forbids wine and coffee, and believes, with Zweifel, that errors in diet are amongst the chief causes of prominent abdomen. The patient is kept on her back for three days, but Windmüller holds that ten days' rest in bed is sufficient. He has had no cases of prominent abdomen in any of his patients, even in multiparæ, with the exception of those who had grown fat. In the discussion, several experienced obstetricians differed as to whether prominent abdomen was due to deposit of fat in the parietes after labor, or to distension of the intestines which could be controlled by the binder. Many surgeons applied no bandage after abdominal section; but the physiological conditions were then not the same as in the puerperium. Schrader and others believed that the binder did more good than harm; he laid great stress on diet in childbed as influencing the future form of the abdomen. All food liable to cause flatulence must be avoided; spinach and potatoes were particularly bad in this respect. When the pelvis was narrow, or its angle too acute, the chances of the abdomen becoming pendulous after labor were great. To counteract the evil, a good abdominal binder should be worn during the last months of pregnancy. In Japan it was customary for women to wear a binder during the entire second half of gestation. The binder in pregnancy supported the anterior walls, and greatly diminished the chances of parting of the recti.—*British Medical Journal.*

Therapeutic Uses of the Nitrites and Nitrates.—Dr. D. J. Leech remarks, that in considering the bearing of the pharmacological action of the nitrites on their therapeutic application, there are three points worthy of note: *First*, the minute quantities which may influence the vascular system and, as a consequence, certain functions of the body. An eighth of a grain of sodium nitrite, a small but uncertain fraction of a minim of ethyl nitrite, or the sixteen hundredth of a grain

of nitro-glycerine will, in many, distinctly affect the circulation. *Second*, notwithstanding their potency, even large quantities of the nitrites and nitro-glycerine do not readily cause death. Although unpleasant, and even alarming results have been known to follow the administration of comparatively small doses, there has been, as far as I know, only one case recorded in which a fatal result has been attributed to their medicinal use. This is the more worthy of notice, since these drugs have been commonly given in serious cases. I do not know of an instance in which ethyl nitrite or sodium nitrite has proved fatal, though very large doses of the latter have been administered. Amyl nitrite has been taken by the dessertspoonful, yet recovery has, I believe, always occurred; and severe though the symptoms are which follow its inhalation, no harm has ever accrued from its employment, save in one instance, a case of phthisis, where death followed the inhalation of seven drachms. Considerable quantities of nitro-glycerine have been taken with impunity, so far at least as concerns a fatal result; only in a few instances have very large amounts, taken accidentally or for suicidal purposes, caused death. *Third*, it is important to bear in mind the evanescence of nitrite action. When nitrites advantageously alter functions, their direct influence for good usually soon ceases; on the other hand, their evil effects are also short-lived; there is no cumulative influence. The pharmacology of the nitrites and nitro-glycerine indicates the class of cases in which these drugs will be of the most utility—namely, those in which the heart is embarrassed in its work owing to a want of due relationship between its power and the calibre of the vessels through which it transmits blood.—*Lancet.*

The Weight of the Two Sides of the Brain.—Prof. Braune, of Leipzic, has recently published the results of weighing the halves of 100 human brains. These were divided in the median line, and the cerebellum, with the medulla and pons, were cut off and bisected. The weight of the two sides of the whole encephalon were compared, as well as that of the cerebral hemispheres, and the halves of the cerebellum with the medulla and pons. It has generally been taught that the left half of the brain is heavier than the right, and that this is a physical cause of right-handedness. The results of Prof. Braune's investigations do not seem to bear this out. He found the left side of the entire brain heavier in 52 cases, and the right in 47 cases, the two sides being equal in 1 case. And he also found that if the excess of weights of the two sides be added up, the right side showed a preponderance, the difference between the two sides being in most cases so slight as not to deserve any consideration. In five cases in which the right side considerably outweighed the left, the bodies were examined for signs of left-handedness, but none were found. The left cerebral hemisphere was the heavier in 54, the right in 37 cases; while the left side of the cerebellum was the heavier in 54, and the right in 33 cases. Thus he found that the cerebral hemisphere of one side is the larger about as often as the cerebellum of the other; but the larger halves are on the same side about twice as often as on different sides.—*Boston Med. and Surg. Jour.*

Strychnine Injections in Paralysis.—Boltenstern, *Therap. Monatsh*, relates the case of a patient who, as the result of alcoholism, was suffering from well-marked paralysis of the lower extremities, accompanied by loss of power in the upper limbs. When first seen the condition was complicated by severe rheumatoid pains, œdema, enlarged liver, albuminuria, and diminution of urine. After a few weeks' treatment directed to these latter symptoms, the paralysis alone remained, and the author therefore resorted to strychnine injections. The nitrate was used in a 1 per cent. solution, and injected by means of a Pravaz syringe, the daily dose at first being 1 milligramme, and towards the end 10 milligrames, or $\frac{3}{20}$ of a grain. In addition the patient was subjected to warm baths with cold irrigations and faradization once in two days. Four weeks of treatment enabled the patient to feed himself and to raise himself in bed without aid, and with no discomfort. After another month slight attempts at walking could be made, and after two further weeks the patient was able to raise himself and walk without aid or support. Four months after the commencement of this treatment the patient was able to return to his occupation. During the early treatment slight collapse occurred twice slightly, but improved with citrate of caffeine. Injections were made on thirty-two days, and the total quantity of strychnine used was $2\frac{1}{7}$ grains. The author feels confident that the merit of curing this paralysis of two months' standing is to be attributed to the strychnine, and he recommeds its further application.—*Br. Med. Jour.*

Is Inebriety a Disease?—"A negative answer to this question," says Dr. T. D. Crothers, "is an evolutionary growth coming into prominence, uninfluenced by legal rulings or personal opinions." The modern scientific view of this question affirms inebriety to be a physical condition of disease, inherited or acquired, and at all times a modified form of insanity. The use of alcohol is, in many cases, only a sympton of degeneration, and in all cases it produces not only changes in structure and circulation in the brain, but kindles into activity latent degenerate tendencies, of which the result is an incapacity to reason, with imperfect

control of the damaged senses. The inebriate cannot be a normal sane man. In England a century ago, when executions for thieving were common, thieves and pickpockets committed the same crimes in crowds about the foot of the gallows. To-day the execution of an inebriated murderer, where all the details of the crime are made public, becomes an object lesson closely followed by other inebriates, who commit similar crimes under precisely similar circumstances. The natural history of such cases is continuous punishment for inebriety, assault, theft, burglary, petty crime, and, finally, murder. Each period of punishment is followed by the same or a more aggravated crime. The purpose of the law is defeated.—*Med. Age.*

The Antiseptic Virtue of Iodoform. Iodoform holds a unique position in its relation to antiseptic surgery. Although it has been demonstrated that the drug possesses no direct germicidal property, there is a general consensus of opinion that used in one form or another, as a powder, in emulsion, by inunction, it exerts an influence that may be considered antiseptic. An adequate explanation of this action is wanting, abundantly confirmed by observation though it is. In his recent address upon "The Antiseptic Management of Wounds," Sir Joseph Lister adopts the view that iodoform acts by inducing chemical changes in the toxic products of bacterial activity, a plausible explanation, inasmuch as we know that the constitutional manifestations of infective processes in general are not so much dependent upon the mere presence of micro-organisms as upon the development of toxins. Treves, *Lancet*, offers a contribution to this interesting subject, in which he reports the generous application of iodoform in powder within the peritoneal cavity in the course of abdominal operations, with results that appear not entirely unrelated to the use of the drug. The special utility of iodoform applied to tuberculous tissues is well known. In our appreciation of the utility of iodoform we must, however, not ignore its toxicity, but should always exercise the greatest care in its employment.—*Med. News*

Fatal Asphyxia Following the Administration of Nitrous Oxide Gas.—Reports of two cases are given in the *Jour. Br. Dental Assoc.* One of these was a case of self-administration, reported to the Clinical Society of London, 26th May. The patient was found seated on a chair, his head had fallen forward on his knees, and the face piece was still in contact with his face. He was an apparently healthy man, aged 40. Artificial respiration was employed. At the *post-mortem* examination, the venous system was found engorged with dark fluid blood. No blood clots were found. The right heart was engorged, the left empty. The organs were all healthy. It seemed that only a small quantity of gas had been used, and that the fatal asphyxia was due to the face piece remaining in contact with the face (Dr. Gage Brown). In the other case, which is quoted from the *Erie Morning Despatch*, the patient, a lady, seemed to have recovered from the anæsthetic, had left the operating chair, and crossed the room twice to rinse her mouth. She then cried, "Oh, my head," and would seem to have become comatose. The diagnosis of apoplexy was made. She would seemed to have died forthwith. No *post mortem* is recorded. She was considered to be in good health, and had taken the gas without any bad effects on two or three occasions previously.—*Glas. Med Jour.*

Quinine in Chorea.—Dorland and Potts report seventeen cases of chorea successfully treated with quinine. Hitherto the treatment of chorea has been by drugs which control the action of the motor nerves, or act as strong spinal depressants —in other words, blocking the manifestation of the disease rather than removing its cause. If chorea is due, as seems probable, to a greater or less diminution of the inhibitory power of a higher nervous centre, then the rational treatment is by drugs which stimulate and restore the function of that centre. Quinine appears to have this power to a marked degree, and the results of seventeen cases treated with large doses are very promising. The children were from seven to fourteen years of age and were given four grains of quinine, four, five or six times a day until cinchonism occurred. The dose was then somewhat lessened and continued t. i. d. In most of the cases an immediate improvement took place and continued for some time. If the drug was used alone a relapse usually followed, but when combined with active treatment toward building up the general health gave permanent results. The large doses which most of the children took without cinchonism were remarkable.—*Univ. Med. Mag.*

Subnitrate of Bismuth in Extensive Burns. —Dr. Spigearny, *La Semaine Médicale*, 1893, observed a case of extensive burn, involving four-fifths of the body and of the first degree. The case in question was a man who, while intoxicated in a Russian bath-house, had a jet of superheated steam turned into the room where he was. Only his feet, legs, and the lower portions of his thighs were unaffected, all the rest of the body and the face presented one single scald, covered with numerous bullæ and vesicles. Spigearny was called the sixth day, after another physician had applied an iodoform dressing, which was completely soaked with the pus and serum from the lesions. His temperature was 40° C., and the urine contained no albumen. After having care-

fully washed the surface of the body by means of a boric acid solution and absorbent cotton, he dusted all the scalded surface over with the subnitrate of bismuth and applied over this a dressing of absorbent cotton filled with the same antiseptic and fixed the whole with tarletan bandage. His face was simply dusted with the subnitrate. He prescribed besides this quinine and stimulants. The patient soon improved, his temperature fell, and at the end of a few days became normal. Complete recovery took place in three weeks, during which the dressing was renewed three times. He had no pain, neither did he present any signs of bismuth poisoning.—*Lancet-Clinic.*

Some Results of Faith Cure.—The reports from a recent faith-cure convention have some curious and interesting statistics. Out of two hundred cures reported thirty patients had made a diagnosis of organic disease; and there were the usual number of fractures which had been marvellously reunited by faith. There was no record made, however, as to the subsequent position and deformity. The time of this method of cure appears to be much shorter than that required by surgical means—as one case of a broken ankle was said to have been cured in five minutes.

The greatest curative effect of faith seemed to be upon erysipelas, for one hundred cases of speedy cure were reported. In what way the streptococcus is affected by a profession of faith was not clearly explained.

The only case not curable by this means appeared to be the rupture of the heart; for one person testified that by faith his child had been cured of colic, and a daughter of pneumonia. Their little one had been taken from them, but not by sickness; he died of a broken heart.

The further gathering of figures and the compilation of mortality statistics should not be neglected; for their results are curious and of some psychological interest.—*Boston Med. and Surg. Jour.*

Varicose Ulcers.—Dr. Reboul, *La Semaine Médicale*, treats varicose ulcers by cleansing, antisepsis and occlusion of the ulcer. He first applies gauze moistened with Van Swieten's solution, or a solution of the biniodide or cyanide of mercury, and covered with oiled silk. After four or five days of this treatment he finds the surface of the ulcer sufficiently modified and covered with granulations to proceed to the use of dry antiseptics. The ulcer is then filled with powdered salol and iodoform, and over this salolized or iodoformized gauze is placed, then oiled silk and a tarletan bandage, reaching from the ankle to the knee. This dressing is not changed for fifteen to twenty days, when the ulcer is found to have healed over completely. If not, a second, or possibly a third, dressing may be requisite to complete the treatment. In cases where the infection is so ancient that mercurial solutions are insufficient to clean the ulcer, camphorated salol or camphorated naphthol may be necessary. He fills the cavity with gauze saturated with these drugs and applies then an occlusive dressing.—*Med. and Surg. Reporter.*

The Local Application of Petroleum in Diphtheria.—Flahaut, in *Normandie Médicale*, reports an epidemic of diphtheria affecting seventy person, which prevailed in his town in 1891-'92. Between April 15th, 1891, and May 5th, 1892, thirty cases were treated in the usual method, with nine deaths. From May 5th to June 15th, 1892, forty cases were successfully treated by local applications of petroleum. This treatment, which is so effective, is easy of application and devoid of danger and pain. At intervals of one or two hours, petroleum is painted over the false membranes, which quickly dissolve. Precautions are taken, of course, to prevent the fluid from falling into the trachea. These applications are painless, even when made on the ulcerated and bloody mucous membrane, and the liquid causes the pseudo-membrane to be dissolved. Fifteen days after this treatment was applied to all the cases of diphtheria, the epidemic disappeared.—*Therapeutic Review.*

Nocturnal Enuresis.—The cause of nocturnal enuresis in nearly *all* cases is want of power in the muscles that close the neck of the bladder, which want of power is caused by inflammation, or lack of strength, or tone; belladonna and strychnine in small doses are nearly specific for this condition. Some cases require a little tincture of apis with the other remedies, but belladonna alone usually cures these cases. We find many good things in the *Brief;* we also find that some of our brethren rush into print and expose a want of knowledge that they should have acquired at medical college, or from books that are easily obtained.—Dr. Clendenen, in *Med. Brief.*

Visitor (picking up the baby): So this is the baby, is it? Bless his little tootsie-wootsies! Kchee-e-e! Watch me poke um's ribs!

The Boston baby: Mother, will you kindly inform me whether the deplorable condition of this person is due to permanent dementia or spasmodic and intermittent insanity?—*Nat. Med. Review.*

Two Girls—Please, sir, do you keep excursion pills?

Chemist (equal to the occasion)—Yes, we have some very fast ones.—*Ex.*

## PROF. J. M. CHARCOT.—1825–1893.*

OBITUARY BY BOURNEVILLE.

TRANSLATED FROM THE ORIGINAL, BY D. CAMPBELL MEYERS, M.D., TORONTO.

[The sudden and unexpected death of the illustrious master, to whom we were so entirely devoted, whom we loved so deeply, has caused us such great pain, and we have so much difficulty in facing the dreadful reality, that we fear we are not equal to the sad duty which devolves upon us of paying, at this moment, a fitting tribute to his memory.]

Charcot (Jean Martin) was born at Paris, the 29th November, 1825, of a family of honorable artisans, of modest means. M. Charcot, who did not conceal his origin, related to us that on account of the inability of his father to give each of his sons a liberal profession, he one day said to them: "I am not able to have you all complete your studies, he who will have succeeded best at the end of the year will continue his profession; another will be a soldier, and the third a coach-maker, like myself." And this was done. Our master won, and in consequence was sent to the Lyceum Saint Louis. His secondary studies finished, he was registered at the faculty of medicine. He was received as hospital interne in 1848, passed his thesis of doctor in 1853, and filled the duties of chief of the medical clinic from 1853 to 1855. He was fond of recalling the fact, that during his studies he gave private lessons in order to attenuate the sacrifices which his family had imposed upon itself to educate him. The following year he was appointed doctor of the *Bureau Central*. Four years later, at his second completion, he became a Professor. In spite of the ardour of his work, of his knowledge, which was as positive as it was extensive, he almost failed, and owed his success only to the last test: the reasoning of his thesis. Hence he expressed his regret to see, in these latter years, this test become almost illusory.

In 1862 M. Charcot returned as *chef de service* to the Salpêtrière where he had been interne. He was to leave it no more. Immediately he set himself to work. With M. Vulpian, his friend, he undertook to collect the histories of all the inmates, and of all who entered the hospital. The collection of these histories formed the *Medical Archives* of the Salpêtrière, and when an intercurrent affection brought an inmate to the general infirmary, he was already acquainted with the case, and was able to follow with much advantage its pathological history. And that continued to the very end. Every autopsy was made with the greatest care, and he himself dictated the results of it. Except during the vacations, his assiduity in his service was exemplary. The duty which he had imposed on himself occupied the entire morning and often more. The abundance of excellent material constituted an inexhausible mine which increased from year to year. From it came the works which he communicated to the *Société de Biologie*, of which he was Secretary, then the Vice-President, or that he inserted in the *Gazette hebdomadaire*, of which he was an energetic contributor from 1857 to 1859, and in which he published, besides his original work, some historical and critical articles which are true models of their kind.

His name was already very honorably known when he inaugurated, in 1866, his lectures at the Salpêtrière, not in the fine amphitheatre which now exists, but simply in a ward, cleared for the occasion. His course was followed with eagerness especially by the former internes, who were certain to find there the subjects discussed, pneumonia in the aged, chronic rheumatism and gout, treated with incontestable ability.

In 1867, for motives which we do not remember, M. Charcot gave his free course at the *Ecole pratique*. He devoted it to hæmorrhage and to softening of the brain, after a first lesson entitled, "Parallel between Empirical and Scientific Medicine." He resumed, the following year, his course at the Salpêtrière, described, among other diseases, paralysis agitans and dissemmated scleroses, until then confounded, which he has, so to speak, discovered, and of which he traced so exact and so complete a picture that nothing really important has since been added.

In his course in 1869 he again discussed hæmorrhage and softening of the brain. Unfortunately only a portion of his excellent lectures has been

* Wednesday the 16th of August, a telegram announced that M, Charcot, then on a holiday excursion for a few days to the shores of the Lake of Settons, in the Nièvre, had just succumbed to an attack of angina pectoris. After a few minutes of suffering, M. Charcot expired in the arms of his two travelling companions, MM. Debove, and Strauss. In a most cheerful letter to Mme. Charcot, that he had written shortly before the attack, he announced to her his intention of returning to Paris on Saturday.

preserved, a fact the more to be regretted since they were filled with new material in regard to pathogenesis, diagnosis and prognosis. Besides the lectures of which we have just spoken, let us further mention those he made on "The Importance of the Thermometer in the Clinic of Diseases of the Aged," and let us here remark that it is principally to M. Charcot that we owe the general use of the thermometer in France, and that he owed to it some interesting revelations by which he has many times profited in his teachings.

That same year he discovered the "Arthropathies of Ataxics," to which the English have given the name of "Charcot's joint disease," and founded the *Archives de Physiologie* with Vulpian and Brown-Séquard. His course of 1870 opened under the most favorable auspices. The ward where it had previously been given had become too small. Among his hearers the number of foreign doctors, notably from Germany, had never been so large. It was at this time that he gave his remarkable lectures on "The Trophic Troubles Consecutive to Diseases of the Brain and Spinal Cord." The unhappy war of 1870 came to suspend them. During the two sieges, M. Charcot, simply did his duty, as he had already done it at the time of the cholera epidemics. Besides his ordinary wards he had charge of a small-pox *service* and a temporary military hospital. In the course of this same year (1870) an unforseen event occurred, insignificant in appearance, which had a considerable influence on the scientific destiny of the master. The building known as Sainte Laure, where the service of M. Delasiauve was installed, comprising the epileptics, the hysterics, and the adult idiots, was menaced with ruin and the Administration was obliged to evacuate it. They placed the adult idiots in three of the sections of the ahenist's quarter; they placed the epileptics and hysterics reputed *insane* in the section of M. Baillargen, and they separated the epileptics and hysterics reputed *not insane*, building for them a special quarter. M. Charcot being the senior of the two physicians of the hospital, they offered it to him and he accepted it. Fortune favored him; science profited by it. All know, in fact, how he utilized this new field of investigation, placed at his disposition.

After the war M. Charcot resumed his teaching. He entrusted to us the publication of the first volume of his "Lectures on the Diseases of the Nervous System." Several lectures since 1868, had appeared in the *Gazette des Hospitaux*, the "Lectures on Trophic Troubles," had just appeared in the *Mouvement Médical*. Hence we expected to proceed rapidly. We did not consider, however, the severity, sometimes extreme, of the master for his own works. He resumed the composition of the lectures on trophic troubles, published in this last mentioned journal and revised them from end to end, hence it was with a new impression that it was necessary to proceed. And this latter composition was again submitted to modifications that we almost despaired of ever reaching the end. After the lectures on trophic troubles, came the lessons on paralysis agitans and dissemmated selerosis. He did not alter them and we took fresh confidence.

We were not, however, at the end of our troubles. It was only by tormenting him with a persistence which would finally have been misplaced but for the support of Madame Charcot, that we at last obtained the lectures on "Hysteria and Hystero-Epilepsy," which terminate this volume. Often, in the years which followed, the same trouble arose, and without the incessant intervention of Madame Charcot, without her encouragement, the greater part of the lectures would have met the same fate as those of 1867 and 1869. If we have insisted on these details, it is in order to show the beneficent *rôle* that an intelligent and devoted wife can exercise in the life of a learned man, and also to destroy the assertion of certain journalists who have accused the master of an immoderate love of publicity. Why had he not been so? we would have, to the advantage of all, a multitude of lectures which have remained buried among his papers.

Appointed in 1872 Professor of Pathological Anatomy at the Faculty of Medicine of Paris, replacing his friend Vulpian, to whom he himself had given place some years previously (1867), he occupied that chair until 1881. It was during this period that he gave his "Lectures on the Diseases of the Lungs, Liver, and Kidneys"; on the "Pathogenic Conditions of Albuminuria"; on "Localizations in Diseases of the Brain and Spinal Cord," etc.

Although this was a branch of the medical sciences which has not the attraction of the clinic,

for instance, he knew how to attract and retain at his course a large audience. To render it attractive and comprehensible even to the students the least *au courant* with pathological anatomy, he made himself, or had made, descriptive plates representing the lesions of the diseases on which he lectured, a method which he had employed at his courses at the Salpêtrière since 1866, and which he did not cease to perfect. He used for this purpose, sometimes the sketches of an author, sometimes, and especially, the anatomo-pathological specimens collected in his rich service of the Salpêtrière or collected at the Anatomical Society. In fact, wishing to give to his teaching an absolutely practical character, M. Charcot understood, that if the anatomo-pathological riches of his service of the Salpêtrière was sufficient for teaching a certain number of diseases, it was not so for a many others. In order to overcome this difficulty, he had the happy idea of accepting the presidency of the Anatomical Society (1872-1882), where, at the time, the majority of the hospital internes brought all the most interesting specimens. And as it was known that he never missed a single meeting, that his presidency was really effective, that he profited by the presentations to make useful remarks, the meetings of that Society were much frequented. Everyone hastened to put at his disposition whatever they judged might be useful at his course.

During the ten years that he taught pathological anatomy at the Faculty, he still continued his free course at the Salpêtrière, supplying in this way a quantity of labor which few men have equalled, accomplishing an immense amount of work known to the entire world. This it was possible for him to do, because his devoted and affectionate wife, "of an exalted mind, an intellect open to all that is beautiful in science and in art, gave him a cheerful and happy home," because his children surrounded him with the deepest respect and the greatest affection. Everyone about him hastened to facilitate his task. Hence he never experienced the need of becoming a man of the world. All that he wished was good, and his most intense desire being a liberty to work, he was able to accomplish, in a life prematurely interrupted, the work that all those admire, who themselves work, and who seek to keep themselves *au courant* with the latest developments of science.

It was during this period that he published his lectures on "The Anomalies of Locomotor Ataxia," on "The Slow Compression of the Spinal Cord," "The Spinal Amyotrophies,' "The Urinary Paraplegias," "Post-hemiplegic Chorea," "Partial Epilepsy of Syphilitic Origin," "Spasmodic Tabes Dorsalis," "Athetosis," etc. It was then that he aided us to found *Le Progres Médical* (1873), that he created the *Revue Meusuelle de Médecine et de Chirurgie* (1877), and that we published together the *Archives de Neurologie* (1880). During this time, also, his researches on Metalloscopy and Hypnotism took place.

It was during the summer of 1876 that M. Charcot revised the works of Burq, on "Metalloscopy and Metallotherapy." Several interesting discoveries followed: modifications which acrhomatopsy undergoes under the influence of metallic applications, transfer, anæsthesia produced by metals, etc. These discoveries in their turn were the starting-point for curious experiments on the action of magnetic bars, of electro-magnets, of solenoids, of static electricity, of the vibrations of a sounding body, etc.

The researches undertaken by our master at the Salpêtrière, and, under his direction, by several of his pupils, upon hypnotism, date from the year 1878. From the beginning, as he himself stated, he sought to give to these researches a prudent and reserved opinion. Little pre-occupied with scepticism, moreover purely arbitrary, acquainted with those who under the pretext of a "scientific mind" conceal a resolution both to see and to hear nothing in these matters, M. Charcot kept himself as far as possible removed from the attraction of the singular, of the extraordinary, a reef, which, in this domain as yet little explored scientifically, is met with at each step. He has stated himself, very simply, the method it is necessary to employ in these difficult studies of physiology and nervous pathology. Instead, he says, in searching for the unexpected and the novel, it is necessary to observe the clinical signs, the physiological conditions, which are easily noticed, of the several states and nervous phenomena produced; to limit one's self at first to the examination of the most simple and most constant facts, to those whose objective reality can be most easily proved, considering only at a later date and always with great care the more

complex or uncertain manifestations, to systematically set aside, at least temporarily, those of a much more delicate nature, which for the moment do not seem to be related in any way to known physiological facts. It is chiefly, according to M. Charcot, because these simple precautions have been too often neglected, that the researches on hypnotism, considered as an experimental neurosis, researches one day destined to give light to a multitude of questions not only of a pathological order, but also of a physiological and psychological order, otherwise almost inaccessible, have not, up to the present, borne all the fruit which can be expected from them, and have not everywhere met with the favorable reception which they merit.

The researches in hypnotism made at the Salpêtrière were all studied from the subjects of hysteria major (hystero-epilepsy). It is, besides, on the subjects of this class above all others, that the various nervous conditions, artificially produced, seem to attain their greatest development, and to appear endowed with their most characteristic attributes. It was considered wiser to limit the researches at first to the regular types, classical in a degree, before seeking to explain those forms which were perplexing, rudimentary or but slightly accentuated.

It seems well to recall here the prudent and entirely scientific method which the master employed in the study of facts, abandoned by physicians or regarded by them in a very unfavorable light, which he at first even hesitated to undertake. The important discoveries, which have resulted from it, have contributed to extend the reputation of the school of the Salpêtrière. They are derived from the medical world and have attracted such an amount of attention from public opinion, that many suppose that the works of M. Charcot were limited to hypnotism while in reality they form only a small portion of the work due to his genius. They made his name famous to the public, but his scientific reputation was already made and was founded on an immovable basis.

His lectures on hypnotism have been the source of a host of experiments and publications. Certain authors have avoided this purely scientific method, and have allowed themselves to be carried to a point at which the imagination and the desire for the marvellous overcame the judgment of a sound and just observation. M. Charcot noticed it with pain. He feared that this new addition to science might again fall into the disrepute from which he extricated it. Some persons, quite recently, have said this feeling was due to jealousy; that he did not wish anyone to touch questions which he himself had taken up. These latter individuals little knew the man, whose scientific generosity was without an equal. They forgot that, in venturing upon the study of a discredited subject, he would, in case of failure, compromise a well-earned reputation, and furnish arguments to ill-disposed persons who saw with reluctance the ever-growing success of the free course of the Salpêtrière.

*(To be concluded in our next.)*

---

The Use of Repeated Fractional Doses of Calomel.—P. Gardiner, M.B., (*Lancet*) says, I read with pleasure in the *Lancet* of July 1st, Dr. Chapman's article on the "Use of Repeated Fractional Doses of Calomel" in gastro-intestinal catarrh. For the last few years I have exhibited calomel in a similar manner with gratifying results; but lately I have substituted liquor hydrargyri perchloridi in three minim doses, with, I think, equally favorable results in children, especially when combined with half-minim doses of ipecacuanha wine. As a rule this combination acts admirably, the vomiting ceasing and the stools rapidly assuming a more normal color and smell. I find children much prefer the mixture to powders, and where medical men do their own dispensing the saving in time is obvious.

Treatment of Sunstroke.—For cases with temperature above 104° F. Waugh, *Times and Reg.*), Ice and ice-water to head, body, rectum; continued until temperature comes down to 100°, and repeated if it rises again. Antipyrine hypodermically, ten to thirty grains; or acetanilide, by rectum. For cases with low temperature, feeble pulse, cold extremities and profuse sweat-sweating: Strichnine, gr. $\frac{1}{40}$ to $\frac{1}{20}$, hypodermically, or tincture digitalis, gtt. xx., warmth to feet, lower head, loosen clothes, alcohol, camphor or ammonia in small and frequent doses.

For medium or doubtful cases: Atropine, gr. $\frac{1}{100}$ hypodermically; acid phosphate; cold or heat to head, as feeble or exhaustive symptoms predominate.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, NOVEMBER, 1893.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## NEW HYPNOTICS.

An interesting and instructive paper was read at a recent meeting of the New York Neurological Association, by Dr. W. D. Granger, upon the subject of New Hypnotics. He said that an ideal hypnotic would give sleep at regularly recurring intervals, and for a definite period of time; this sleep would be natural, strengthening and restorative; it would not be injurious to health or harmful to life, and it would not produce a habit, but would restore a patient to the condition of obtaining sleep without the use of drugs. Such a drug was not known, and there was none that closely approached this definition.

He considered that little need be said of the bromide group, which are principally valued for the treatment of epilepsy. It was in the group represented by chloral, and called the alcohol and chloroform group, that the great crop of new remedies was found. In their hypnotic effect the higher portions of the brain were first involved; first the cortex, lastly the respiratory and cardiac centres. The best hypnotics were those acting most strongly upon the cortex, dulling the sensibilities both from within and without, lessening voluntary muscular activity, and influencing but slightly the vascular system.

Among this group of hypnotics might be mentioned bromal hydrate, which was said to be more dangerous than chloral, and had but little value; and chloralamide, which was less depressing than chloral, although serious collapse had followed its use. It produced quiet and refreshing sleep, with no unfavorable after-effects. It was not so certain in its effects as chloral, and it did not act so promptly. The dose was from 30 to 45 grains. It was useful as an alternative to the other hypnatics. Chloral ammonium, in doses of 15 to 30 grains, was said to be non-depressive and was a good hypnotic. Hypnol was said to unite the analgesic effects of antipyrine and the hypnotic effect of chloral. It was useful when sleeplessness and pain were combined, and the employment of opium was contradicted. The dose of the drug from 15 to 30 grains.

Urethane belonged to the ethyl group; it was useful in the milder forms of insomnia, and for purposes of change; the dose was from 20 to 30 grains. Somnal was an alcoholic solution of chloral and urethane, and was of little value. The dose was half a drachm. Paraldehyde could not be classed among the newer drugs; with chloralmide it was the only drug comparable with chloral in hypnotic power, they would win their way in the most obstinate cases, and were valuable in all cases of insomnia. Sulphate of duboisine was being used as a substitute for hyoscine. It had been asserted that it gave more natural sleep and was less depressing. Sulphonal tetranal and trional were so closely related that they could be considered together. Almost everyone had a place for the first-named. It had marked hypnotic power. In ordinary doses it seemed safe. Its long continued use was to be avoided, not so much that it quickly lost its power, for it did not, but that it was dangerous to health. Its action was often slow, for, even if taken in the hottest water, it sometimes seemed to be precipitate in the stomach, unless quickly absorbed. Its effects were frequently long-continued, and the second dose often acted better than the first. It was a pure hypnotic, but was less powerful than chloral. It was of little value where pain was associated with sleeplessness.

In concluding, Dr. Granger stated that we must remember that sedatives were not to be found in the pharmacopœia alone, and he who relied upon drugs alone for the production of sleep, was in advance doomed to failure. The treatment of insomnia went far beyond the mere giving of drugs; and all hypnotic remedies—new and old—were made doubly valuable by studying the individual and using such adjuncts in the treatment of the condition as were indicated.

## ASTHMA AND ITS ANALOGUES.

To the Editor of the CANADA LANCET.

DEAR SIR,—Permit me to submit a new view of asthma to your readers. There is narrowing of the caliber of the bronchial tubes, and also a dilated condition of the air cells, as evidenced by the hyper-resonant percussion note. The explanation generally given for the narrowed caliber is that there is spasmodic contraction of the muscular tissue of the tubes, and that this is due to some, as yet, obscure operation of the nervous system. My view is that, from the symptoms presented, and from analogy, the condition is one of venous congestion of the bronchial tract, with consequent excessive accumulation of the gases of the blood in the air cells, and tumefaction of the bronchial mucous membrane by the distention of the venous radicles—sometimes even to the effusion of non-coagulable, because non-inflammatory, plasma. The effect of these pathological states is interference with, and partial suspension of, the necessary diffusion between the expired blood gases—chiefly $Co_2$—and the inspired air; and fully explains the distension of the chest walls, the short and ineffectual inspiratory and prolonged expiratory efforts, and the loud wheezing heard during the respiratory process.

The analogy thus borne by asthma to flatulent colic, angina pectoris, epilepsy and migraine, to the painful limb-pains of persons suffering from threatened syncope, is complete. These disorders form a hitherto undescribed group—the anginal group—due to venous congestion. In all, there are the same objective and subjective symptoms, modified, of course, according to the particular seat of the disorder, yet clearly indicating the operation of a common exciting cause in a predisposed area. Thus, there is collapse with low temperature; a feeble and frequently a fluttering pulse, and pain of a heavy, leaden, stunning character, and the extremities and body surface are cold. The group of venous diseases thus become as well defined as that connected with the arterial set of capillaries and known as acute inflammatory, with the terminal *itis*; and the treatment is as radically different. In arterial congestions cardiac depressants are indicated, to reduce the pulsations and lower the temperature. In venous congestive disorders, the remedies which answer best are belladonna, alcohol, ether, and the nitrites, to throw off the blood from the heart, and stimulate that organ to greater circulatory activity.

I am, sir, your obedient servant,

C. R. ILLINGWORTH, M.D.

Oct. 2nd, 1893.

## MEDICAL FEES.

While the cost of living has enormously increased since our grandfathers' days, there has not been a corresponding increase in the money-earning power of the medical man. Ours is perhaps the only profession in which the increase in pay for services rendered has not kept pace with the increased necessary cost of living, and decreased purchasing power of money. In what other walk of life can there be found men working for the same amount they did 40 or 50 years ago? We venture to say, in none. Our remembrance cannot go back even for 30 years, but we can distinctly call to mind ministers living on $300 per year, rather, we should say, existing on that and charity in the way of "socials," "tea-meetings," etc., where now they likewise exist on $700 or $800, plus the same machinery in the way of charity. Their stipends have been more than doubled in the past 25 years, and so through the various walks of life—except the physicians'.

As illustrative of this fact, we give the scale of fees adopted by twenty of the leading practitioners of Toronto, and signed by them, in July, 1855, nearly 40 years ago:—

For every ordinary visit, if the usual medical attendant of the patient, from 9 a.m., to sunset, $2 maximum, $1 minimum.

If not the usual medical attendant of the patient, for each visit during the above-named hours, $4 max., $2 min.

Night visits, or from sunset to 9 a.m., $8 max., $2 min.

Consultation visits, $5 max., $2 min.

Letter of advice or certificate, $10 max., $4 min.

Detention, in addition to the regular fee, per hour, $5 max., $1 min.

FOR SURGICAL OPERATIONS

For capital operations, $200 max., $40 min.

For minor operations, $40 max., $2 min.

For operations which may be ranked between capital and minor operations, $100 max., $10 min.

For setting fractures, $40 max., $10 min.

For reducing dislocations, $40 max., $10 min.

MIDWIFERY.

For attendance in all ordinary cases, $40 max., $6 min.

For attendance in complicated cases, $60 max., $12 min.

In addition to the above fees for Operations and for Midwifery Cases, the subsequent attendance is to be charged; and it is understood that the foregoing fees are intended to be charged from the minimum to the maximum amount, according to the circumstances of the patient, the importance of the case, and in an inverse proportion to the length of attendance on the case, as may seem right to the medical attendant.

The above prices if charged to-day would make some of Toronto's wealthy men stare. Among the signatures we notice the names Widmer, Beaumont, Bovell, Hodder, Russell, Grant, Philbrick, Small, Bethune, Nicol and others whose names will long be remembered as foremost in the rank of medical and surgical science of the day.

---

A New Illustrated Dictionary of Medicine, Biology, and Collateral Sciences.—Dr. George M. Gould, already well-known as the editor of two small medical dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a *corps* of able assistants have been uninterruptedly engaged for several years. The feature that will attract immediate attention is the large number of fine illustrations that have been included, many of which—as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work. Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in biology, chemistry, etc.

The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new knowledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume. The pronunciation, etymology, definition, illustration, and logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter, a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance. The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference. The publishers, P. Blakiston, Son & Co., announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.

Injections of Iodoform in Goitre.—Kapper, *Gaz. de Hóp.*, *Br. Med. Jour.*, uses a solution containing 1 part of iodoform and 7 parts each of ether and olive oil, which is injected into the goitre after previous disinfection of the skin. The trocar of the syringe is disinfected, and is then plunged to the depth of 2 to 3 centimetres into the tumor, and the patient is told to swallow in order to ascertain whether the cannula takes part in the movements of deglutition, or whether it has not been inserted deeply enough. Immediately the solution is injected the trocar is rapidly withdrawn and the orifice of the puncture closed by means of a piece of diachylon plaster. When the goitre is very large, he injects as much as 6 grammes of the solution at one sitting, in four different parts. The injections were repeated at intervals of four to six days, sometimes on several consecutive days. Local reaction was always feeble. Eight men and six women have undergone the treatment. After ten injections in the course of two months, the circumference of the neck was diminished by 6 centimetres at least, and after another interval of two months there was a diminution of 8 or 10 centimetres. Besides this the discomforts felt by the patients were sensibly attenuated. Six months after cessation of the treatment the improvement was maintained.

Vaginismus Obstructing Labor.—On February 11, 1893, I was called to see a black girl,

aged nineteen, Dr. Cargill, *Br. Med. Jour.* This was her first labor, and pains had been going on for fourteen hours; the liquor amnii had escaped early. The nurse told me that there was "no passage." I found a tight constriction of the sphincter vaginæ, the tenesmic condition being intensified during the pains, which were strong and frequent. The finger was tightly grasped by the spasm, and the presentation could not be made out. The bladder was full, the urethra being flattened by the vaginal constriction. I at once placed the patient under chloroform, and emptied the bladder; the spasm relaxed, the head descended, and the child was expelled in half an hour. Had not chloroform come to the rescue, rupture of the uterus would probably have taken place. Spasm of the vagina during labor is undoubtedly a very rare complication. I see no mention of it in the many books in my library. I have occasionally met with it in cases not connected with child-birth. My last case of vaginal spasm occurred in a maiden lady who had been recently operated on for hæmatocolpos.

Arsenic in Epithelioma.—Lassar, *Berl. klin. Woch.*, *Br. Med. Jour.*, reports his success with arsenic administered internally in four cases of epithelioma affecting various parts of the face. Case 1 was a man, aged fifty, with three large swellings occupying one orbit, the nose and the chin respectively. Microscopic evidence showed epithelial cells, spindle cells, and alveolar structure. Immediately after the administration of arsenic, the three growths gradually diminished by drying up, involution, and cicatrisation, until the youngest growth had disappeared, and the second one cicatrised. The largest and oldest growth occupying nearly the whole of the orbit, showed little change, and owing to the suggested excision of the eyeball, the patient withdrew from treatment, and is believed to have died subsequently. In a second case, that of a woman of advanced age with a smaller growth on the nose, a great reduction in size took place, and the patient, being satisfied, also ceased to attend.

The author now resolved to adopt the same measure with recent growths instead of at once resorting to the knife. The first patient had on one cheek a growth equal to half a walnut, which had taken six or eight months in developing. Only a slight erosion of the surface was present. The diagnosis was confirmed microscopically, and arseniate of potash was administered three times daily for two months, when the growth had shrunk and cicatrised. The next patient was a man with a similar growth of three months' standing on the left ala nasi, the condition and proofs being the same. Fowler's solution was given internally, accompanied at first by subcutaneous injections. These being painful were discontinued, and in two months complete disappearance with cicatrisation followed. The author admits the small number of cases experimented on, but lays stress on the striking and indisputable results. Illustrations of the patients at various times and of the microscopic sections are given.

The Forceps in Labor, with Special Reference to a Resistant Cervix.—Before the circular muscular fibres of the cervix are exhausted by intra-uterine pressure as well as by contraction directly of the longitudinal fibres of the body, *D. Hardie*, *Epitome*, the latter will possibly have little residual force left, the pains will be unable to expel by themselves the contents of the uterus, and in the end the forceps will require to be resorted to. Under these circumstances it is our obvious duty to interfere in time, and thus prevent a protracted labor. If, now, the forceps be used, as directed, during the pains in a case where the cervix seems to be the chief cause of delay, what should we expect to happen, and what does actually happen in some, perhaps in many, cases? The point of resistance must give way, and we have as a result a lacerated cervix. It is needless to say that we should not apply the forceps until the cervix is sufficiently dilatable during the pains as to eliminate all source of danger in this respect, for we are dealing with a case of some duration, that has practically entered the second stage of labor: (1) where the cervix is fully relaxed and dilated between the pains; (2) where, however, the contractile power of the cervix during the pains is not exhausted, but seems for the time equal to the intra-uterine pressure; and (3) where the labor, if left to nature, will be unnecessarily prolonged, and ultimately demand, for reasons already given, the use of the forceps.

Knots in the Umbilical Cord. — Lefour, of Bordeaux, *Br. Med. Jour.*, *Progrès Médical*, has

made researches in this subject. A knot in the cord is very likely to kill the fœtus by offering a simple mechanical obstacle to the circulation; the umbilical vessels become plugged, owing to changes in their coats. In one case, where the fœtal movements and heart sounds ceased twelve days before delivery, there was a tight knot in the middle of the cord. Arteritis and complete obstruction by organized clots were detected on examining the vessels at the affected point. Lefour experimented by injecting water at constant pressure into the umbilical vessels, and found that the knot does not markedly impede circulation, unless there be compression as well. An amount of pressure which would hardly be dangerous in a cord free from knots, is perilous when a knot exists. In the absence of compression a knot, even if tight, probably loosens itself under the increased pressure of the contractions of the fœtal heart.

Paternal Transmissibility of Tuberculosis.—Dr. John M. Keating, in an excellent paper before the American Pedriatric Society in May, 1893, on "Plausibility of the direct transmission of tuberculosis to the fœtus from either parent" concludes as follows:

1. Unrecognized genital tuberculosis in women without pulmonary disease is not uncommon.

2. A tuberculous mother can transmit the disease to her offspring in utero.

3. Tuberculosis is apparently at times confined to the generative organs of women, probably with greater frequency than we now recognize.

4. Bacilli or their spores can be conveyed by means of seminal secretion to women when no apparent tubercular lesion is present in the male generative organs.

5. Women may, and often do, escape tuberculosis when transmitted in this way, and even when evidence exists of tuberculosis of the male generative organs.

6. Is it not possible for the father to transmit his disease directly to the fetus, the mother not proving a fertile soil, and, if so, is it not possible for this inheritance to become latent in the child, only to manifest itself when accident or environment tends to bring it into activity? And can we not go still further and assert that the bacillus or its spores, inherited from either parent, may be carried into another generation and either become manifest in glandular affections, joint troubles or even finally in pulmonary disease?

The Ultimate Prognosis in Neglected Adenoid Hypertrophy was the title of a paper by Dr. D. Bryson Delawan, of New York City, *Med. Rec.* The question was asked, Does adenoid hypertrophy, if left to itself, disappear, leaving the vault in a normal healthy condition? Generally speaking, it does not, but remains under some pathological state, which may continue throughout the life of the patient. 1. The enlargement may not subside, and a degree of hypertrophy sufficient to cause serious injury and annoyance may continue to exist for many years. 2. The so-called "Thornwaldt's Disease" appears to be nothing more than neglected adenoid hypertrophy. 3. Disappearance of the hypertrophy may be attended with an atrophic condition of the vault of the pharynx the result of which is a pathological state detrimental to the patient and difficult to cure. The above conditions may influence not only the locality in which they arise, but may have far reaching and disastrous effects upon other organs. The ultimate prognosis as to the local condition, therefore, in cases of neglected adenoid hypertrophy, is unfavorable.

Cocaine in Smallpox.—Dr. Saymoa, of Guatemala, after using this alkaloid in several cases of smallpox, states his results as follows:—*La Esc. de Med.: Med. Age.* Cocaine given continuously from the beginning can completely abort the disease. If given after the eruption has appeared, it will transform confluent or hæmorrhagic into discrete forms. Sometimes when the cocaine is given from the beginning of the disease, the eruption assumes a *corneal aspect* and the pustules fall very soon. Cocaine prevents suppuration, hence there is no secondary fever, and no marks remain on the skin. To obtain these results it is necessary to give cocaine as soon as the initial symptoms appear, *and it must be continued without interruption.* The best preparation is the hydrochlorate, and should be continued five or six days or even nine if necessary.

When a child develops acute otitis media (*Detroit Emergency Hos. Rep.*), it is necessary that active treatment be undertaken promptly, else the

disease is likely to go on to suppuration and may readily extend to the membranes of the brain and result fatally. Not a few children die from this cause. The early recognition of the disease is not always easy, but it is safe to assume that any child attacked with earache and fever, exhibiting restlessness, rapidity of pulse and the anxious expression of countenance indicative of the existence of fever in children, with or without tenderness over the mastoid, has this disease. The use of ten per cent. iodoform gauze in the form of pledgets inserted loosely into the external auditory meatus, with the ear and the side of the head covered with cotton freshly sterilized by heat, held in place fly a little hood, often gives relief from these symptoms, and may cut short what would otherwise became a suppurative inflammation of the middle ear.

SINGER (*Centralblatt fur Chirurgie, Therap. Gaz.*) describes a method of curing, in a short time, wounds of the cranial bones, accompanied by stripping off the periosteum. After the wound has been treated antiseptically for several days by moist sublimate or carbolized dressings, the external table, or a portion of it, is chipped away by means of a chisel. A moist bandage is then applied. In two or three days healthy granulations appear, and in a very short time the whole wound is converted into a surface of granulation, which promptly cicatrizes. Even in suppurating wounds this method may be carried out. Of course in phlegmonous and progressive inflammatory processes such procedure is not to be recommended, the bones being treated upon general surgical principles. By this treatment wounds of the skull, which would require weeks, or even months, to heal, are completely cicatrized within a few days.

BORIC ACID.—There seems to be a tendency to use borax more and more internally, *Southern Clinic.* In all bladder troubles ten grains of the powder is given several times a day. In cystitis it certainly produces good results. Torchinsky has tried it in 240 cases of typhoid fever during an epidemic, and reports 231 cases of success; 10 to 15 grains were given, and in the first three to five days the fever and diarrhea diminished, tympanitis almost disappeared, and the stools became normal in character. As soon as this effect was produced the boric acid was discontinued and tonics given. In the later stages of the disease quinine was added to the boric acid, when there were any cerebral symptoms.

A HEAVY, DULL HEADACHE, *Alienist and Neurol.*, situated over the brow and accompanied by languor, chilliness, and a feeling of general discomfort, with distaste for food, which sometime approaches to nausea, can generally be completely removed by a two-grain dose of the iodide of potassium dissolved in half a wine-glass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person, who a quarter of an hour before was feeling most miserable and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.

"THE CANADIAN MAGAZINE" FOR OCTOBER.—The October number of *The Canadian Magazine* is excellent. It is full of variety; the topics are timely, and the illustrations abundant and creditable. Wm. Ogilvie, F.R.G.S., the famous Canadian traveller, continues his trip down the Yukon, illustrating it with excellent views of the scenery, and goes into winter quarters near the Arctic Circle. "With a Fishing Tug on Lake Superior," by Henry J. Woodside, is very interesting, well written and attractively illustrated. Dr. John Ferguson furnishes a very readable article on Consumption, taking a hopeful view of its preventibility, and making valuable suggestions on the subject. W. A. Sherwood's view of the recent influence of the French School on Art is striking. Other articles are: "Technical Schools for Women," by Helen Cameron Parker; "Origin of the Social Crisis in the United States," by Viscount de Fronsac;" "Emerson's Choice of Representative Men," by Jean McIlwraith; "A Canadian Ghost Story," by Rev. Herbert H. Gowe, and "An Old Flame," by Charles Gorden Rogers, furnish excellent fiction. Published by the Ontario Publishing Co., Ltd., Toronto; $2.50 per annum.

EARLY NOCTURNAL PAIN IN SYPHILITIC SPINAL DISEASE.—Charcot calls attention to a symptom of syphilitic disease of the spinal cord which is of

value in localizing the seat of the lesion in its early stage. The occurrence of nocturnal pains in the cervico-dorsal or dorso-lumbar regions of the spine at a regular hour, usually in the latter part of the night, is a marked symptom of early syphilitic spinal meningitis. The duration is usually a few weeks, and the pain is a precursor of the paralytic phenomena by several weeks. Careful observation of this symptom may be of great importance in treatment of the patient.

Creolin in Summer Diarrhœa of Children.—In the antiseptic treatment of cholera infantum and summer diarrhœa, Norin reports successful use of rectal injections of warm creolin solutions. He lays the child on its abdomen and flushes the bowel with an alkaline solution, and then injects a solution of creoline of the strength of one-half to one drachm to the pint of boiled water. This is repeated several times in the twenty-four hours, if necessary; but in most cases the vomiting stops, and the diarrhœa is much lessened.

A writer in the *Lancet* (*Maryland Med. Jour.*) claims to have relieved cases of obstinate tympanitis instantly by placing the patient in the knee-chest position.

Dr. Sarah Post recommends that vaginal douches be not employed in the treatment of unmarried women, as they are likely to excite sexual orgasm.

Half a teaspoonful of the ammonium chloride in a goblet of water is said to restore a drunken man to his mind and physical powers.

Quinine in Chorea.—The result of clinical studies, H. C. Wood in *Brit. Med. and Surg. Jour.*, seemed highly favorable to the use of large doses of quinine in the treatment of chorea. A remarkable fact in the cases most carefully watched, was the complete absence of apparent physiological action. A child of ten years of age took 1,200 grains of quinine in the course of seven weeks, having part of the time taken day after day twenty-four grains a day with no physiological symptoms, only a steady growth in the general nutrition.

William R. Warner & Co. Given the Highest Columbian Award.—W. R. Warner & Co., of Philadelphia, have obtained, *Phila. Inquirer*, the highest prize for the purity and perfection of their medicinal and officinal standard pharmaceutical and chemical products. This extensive firm have obtained hitherto twelve grand World's Fair prizes, and they must feel deservedly proud of the Columbian award.

Dr. W. A. Jones, of Malvern, Ark., under date of October 3, 1893, writes: "I have given Papine a thorough test, and like it much better than any other preparation that I have ever used of all the opiates. It never nauseates, either primarily or secondarily, and has given relief where all the other preparations of opium have failed. It acts well as a febrifuge.

Died.—In Neustadt, on the 10th October, Geo. Niemeier, M.D., in his 70th year.

## Books and Pamphlets.

The Diseases of the Nervous System, a Text-book for Physicians and Students. By Dr. Ludwig Hirt, Professor at the University of Breslau. Translated by Drs. Hoet and Smith, Assistant Physicians to the Johns Hopkins Hospital. 178 illustrations; 683 pages. New York: D. Appleton & Co. 1893.

The introduction to this admirable work is by Prof. Wm. Osler, of Johns Hopkins, to whom the profession are once again under an obligation. In his introduction, he not only gives without reserve his praise to the author's work, but couples Dr. S. Weir-Mitchell's name with his own as sponsor for the book. He points out the originality and manifest advantage of the author's division of his subject, diseases being classified into: 1. Those of the brain and its meninges, including those of the cranial nerves. 2. Those of the spinal cord, including, *a*, meninges; *b*, spinal nerves; *c*, substance of the cord. And 3. Diseases of the general nervous system, subdivided into those with no recognizable anatomical basis (functional neuroses), and those with known anatomical basis. Osler notes, as a "distinct advance in classification," that he "places tabes dorsalis and dementia paralytica among diseases of the general nervous system, instead of in the sections on diseases of the cord and diseases of the brain respectively."

One point of excellence which must be noted, is the anatomical and physiological review which

prefaces each chapter, and introduces the pathology of the region to be discussed. Another good feature is the bibliography, full enough, but referring mainly to recent works only, and placed at the end of the discussion of each disease, not massed in the closing pages of the book. It is particularly refreshing to note the candour and evident fairness and scientific discrimination of the chapter on hypnotism. He places treatment by suggestion in the domain of legitimate therapeutics, and yet seems to show a safe conservatism in his recommendation of it.

The illustrations are numerous, and new, not borrowed. The work of the translators is excellent, the English idiomatic and clear.

Physiology, a Manual for Students and Practitioners. By Frederick A. Manning, M.D., Surgeon to Manhattan Hospital, New York. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co.

One of the Quiz series. It takes the place of the student's note-book, briefly supplying facts which may and should be first learned by reading more extended works, or attendance on lectures. It is founded on Dalton, Foster and Kirk. Woodcuts are numerous. It will be found useful in its place.

A Text Book of Medicine for Students and Practitioners. By Dr. Adolf. Strümpell, Professor and Director of the Medical Clinique, at Erlanger. Second American Edition, translated and revised from the Sixth German Edition, by Herman F. Vickery, A.B., M.D., and Philip Coombs Knapp, A.M., M.D., with editorial notes by Frederick C. Shattuck, A.M., M.D., Professor of Clinical Medicine, Howard Univ., etc. With 119 illustrations, pp. 1043. New York: D. Appleton & Co. Toronto: Carveth & Co. 1893.

The new edition of Strümpell's well-known work, brought out within a year's time of the issue of the 5th edition speaks well for the popularity of the work, and indeed the popularity of the work with the profession, is more than ordinarily well deserved. We know of no work in medicine more valuable to the practitioner and student. The chapters on Diseases of the Nervous System, that *bête noir* to both student and doctor, are wonderfully well arranged and clearly written. There is an entirely new chapter on Influenza, a disease which had almost been forgotten, when the last great epidemic brought it prominently to medical attention. Quite important changes and additions have been made in the chapters on cholera, malaria, disease of the nose and larynx, syringo-myelia, and diabetes. The appendix on poisons has also been considerably enlarged.

A Handbook of Invalid Cooking; for the use of Nurses in Training-Schools, Nurses in Private Pratice, and others who care for the Sick, containing explanatory lessons on the properties and value of different kinds of food, and recipes for the making of various dishes. By Mary A. Boland, Instructor in Cooking in the Johns Hopkins Hospital Training-School for Nurses; Member of the American Public Health Association. New York: The Century Co. Toronto: Carveth & Co. 1893.

An interesting and useful book for all who have charge of sick people.

Diseases of the Skin; a Manual for Students and Practitioners. By Charles C. Ransom, M.D., Asst. Dermatologist Vanderbilt Clinic, New York. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co. 1893.

This is another of the Quiz series, and will be very useful to students and others beginning the study of skin diseases.

The Modern Antipyretics; Their Action in Health and Disease. By Isaac Ott, M.D. Second Edition, revised and enlarged. Easton, Pa.

An interesting dissertation on that important subject, fever, with a discussion on the best means of combating it.

Notes on the Newer Remedies; Their Therapeutic Applications and Modes of Administration. By David Cerner, M.D., Ph.D., Demonstrator of Physiology in the Univ. of Texas, Galveston, etc. Philadelphia: W. B. Saunders. Toronto: Carveth & Co. 1893.

A work containing real information, free from padding. Useful to everyone who reads modern medical literature, containing, as it does, the chemical composition, physical and therapeutic properties and dose, mode of administration, etc., of all the important new remedies. No general reader can possibly keep abreast of the new remedies of the day without some such aid.

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### PROF. J M. CHARCOT.—1825–1893.

OBITUARY BY BOURNEVILLE.

TRANSLATED FROM THE ORIGINAL BY D. CAMPBELL MEYERS, M.D., TORONTO.

*(Concluded from Nov. issue.)*

In 1882, the desire of the master was realized. A clinical chair for nervous diseases was created for him at the Salpêtrière. It was, moreover, only an official recognition, although somewhat tardy, of an act of devotion which had honored French science for sixteen years. In fact, before this official change, M. Charcot had been given possession, by State aid, and especially by the municipal council, of buildings which had made his service a true neuro-pathological institute. In his opening address, after having expressed his gratitude to the administrative bodies, he said, "Finally, gentlemen, in order to terminate this act of gratitude, a duty devolves upon me which I shall be particularly happy to fulfil. Reviving many former memories, I now come to appeal to those who do me the honor of calling themselves my pupils—all to-day have become masters, or are about to become such—and, giving them once more the assurance of my sincere friendship, I invite them to rejoice with me over the happy success of a work in which they have participated."

In this same address he once more stated that "the widely accepted intervention of the anatomical and physiological sciences was a condition essential to progress." He affirmed "the decisive influence that microscopic investigations have had on the progress of neuro-pathology when directed according to the anatomo-clinical method." He proclaimed that "the principles which govern pathology as a whole are applicable to neuroses, and that in these also, one may seek to complete clinical observation by thinking anatomically and physiologically."

From this time until the present, have appeared, with the works on hypnotism, on the organic diseases of the brain and of the spinal cord, other works on aphasia from the clinical and psychological point of view, on hystero-traumatism, epilepsy, psychiatry, the amyotrophies, word-blindness, hysteria in the male, etc. Let us mention also the two volumes of the *Lecons du Mardi*, delivered in 1887–1888, veritable master-pieces of the examination of patients, of semeiology and of diagnosis, and the two volumes of "*Clinique des Maladies du Système Nerveux*," which comprise his works from 1889 to 1891.

It has been written, through ignorance or dishonesty, if not through both, that M. Charcot took no trouble to cure his patients. An absurd assertion, because had it been so, he would not have seen the crowd of patients which flocked to him for treatment. Therapeutics, as well as the other branches of the medical sciences, owes numerous contributions to his pen. "We will mention the following: On "The Employment of, and the Objections to, Nitrate of Silver"; on "The Treatment of Acute Articular Rheumatism by the Alkalis"; on "Anaphrodisia, due to the Prolonged use of Arsenical Preparations"; "Expectation in Medicine;" "Objections to the Administration of Preparations of Opium in Albuminous or Chronic Nephritis"; on "The Application of the Actual Cautery in the Treatment of the Paraplegia of Pott's Disease"; on "The Treatment of Menières Disease by the Sulphate of Quinine in large doses"; on "The Treatment of Partial Epilepsy of Syphilitic Origin"; on "Metallotherapy, Electrotheraphy"; "The Application of Magnets;" "Ovarian Compression" and "Hydrotherapy." Let us further note the collection of rules which should govern the treatment of hysteria, by which he restored to health a large number of patients, and which generally serve as a guide to practitioners; his admirable memoir on the "Faith Which Cures." Let us add finally that the greater part of his lectures conclude with a method of treatment.

M. Charcot was elected member of the Institute in 1882, replacing J. Cloquet, and was appointed commander of the Legion d'Honneur, in February 1892.

His complete works, of which we have undertaken the publication, and of which nine volumes

have already appeared, would not form less than fifteen volumes if they were finished. In order to show how much his works were appreciated abroad, we would mention that a great number of them have been translated into the German, English, Spanish, Italian, Magyar and Russian languages. No one among his contemporaries, has been so highly honored, a fact which, moreover, reflects immortal credit on French science.

The Salpêtrière had become in a manner his second home. He interested himself in every thing which took place there. It was in this way, although indirectly, that he lent his assistance to the success of the Nursing School. We would not have spoken of it if the attacks, of which he has lately been the object, did not compel us.

The Salpêtrière on account of its population, from the variety of patients which it contains, old people, chronics, lunatics, epileptics and children was chosen by us for the creation of the first Nursing School. Two years as interne, eight years as voluntary assistant in the wards of M. Charcot, devoted to epileptics and hysterics ; some services rendered during this period to the *personnel* of the Hospital had given us a certain influence, which contributed to the success of the school. M. Charcot, who knew by experience what was done in the hospitals of London, by generous gifts, in which Madame Charcot and her family participated, encouraged the nurses from the beginning to profit by the means of instruction that were placed at their disposal. It has always been the same since 1878 until the distribution of prizes on the 29th of July last. As a man of progress how could he be disinterested in a work which placed his staff in a better condition to second his efforts? He demanded a great deal from them and he obtained all he wished.

As they saw him carefully examine his patients, giving a great deal of time to them, each one followed his example and devoted all their energies to the work. All loved him. It would have been ingratitude on his part, therefore, if he had not, the occasion offering itself, done justice to all the staff, who modestly and constantly, night and day, helped him so attentively. This occasion presented itself at the celebration of the fiftieth anniversary in the Hospital's service of Mlle. Bottard. In order to show how he appreciated his assistants, we reproduce the passage of a speech, full of feeling, which, amidst the applause of all, he delivered at that ceremony.

"Thirty years ago, a little more perhaps, have you and I marched side by side, here in this grand asylum of human misery that they call the 'Hospice de la Salpêtrière' treating or consoling the patients as best we could, each one following his special calling. I can then say that I know you well and am able to appreciate your long and laborious career, since I have followed it, in a way, step by step. Indeed I do not hesitate to say and even wish to declare emphatically and proclaim publicly, after having known you as I do, that in my opinion those who suppose that the lay-attendants of the hospitals are incapable of showing, in the exercise of their duties, that absolute unselfishness, that devotion without limit, and those moral qualities, the monoply of which, according to them, would belong to the attendants of the other system ; those, I say, deceive themselves, or they deceive others A simple laic, in fact, laic according to the tradition of the Hospice, which dates back to 1656 (foundation St. Vincent de Paul), without other stimulus than an imperious sense of duty and personal dignity, increased in you, it is true, by a profound sympathy for the wretched, the incurable, the physically and morally deformed, in a word, the unfortunate of every kind ; have you not during more than fifty years, quietly, modestly, and without any other aim than your ardent desire to do good, have you not, I say, led this life of renunciation and self-sacrifice required by the post of honor which has been entrusted to you!"

It was not alone to his modest assistants, attenddants and nurses that he and his manifested their munificence ; it was also to the aged women, the incurables, to the patients in his wards, and those who had been discharged. How many times we and his other pupils, our friends, have served as intermediaries on occasions of this kind!

His medical teachings to his own pupils, and to all students who followed his course has never been surpassed by anyone. It was not ordinary subjects that he chose, but sometimes those that were entirely original, such as multiple sclerosis, the arthropathies, the pathogensis of cerebral hæmorrhage, etc. He gave the subject, traced the plan, furnished notes and also the bibliographical references appertaining to the history of the ques-

tions when it was not an analysis made by himself of these works. Knowing German and especially English, which he spoke, he always kept himself well posted in science, and derived pleasure in giving to each one the justice which was due to him; all his works are witnesses of it.

His library also furnished its contingent. It is impossible for us to state approximately the number of theses of doctors, the number of memoirs and theses of professorship to which he contributed his assistance. Was he always recompensed for it as he merited, or with justice? No! But that never deterred him, and his generosity to science never diminished. It had moreover another result, that of creating among the internes a veritable emulation by his scientific liberality. It was in this manner that he created the school of the Salpetrière.

His former internes became his friends, formed part of his family. He helped them in their work, supported them in their struggles; he shared their cares and disappointments, and was deeply touched if one of them became the victim of the injustice of fortune. . . . and of men. Ingratitude wounded him to the quick.

We have tried very imperfectly, to make a rapid sketch of the scientific life of M. Charcot. Time and space are lacking to define and appreciate, at its just value the many phases of his vast genius, but there is one feature that even in this short notice we cannot leave untouched. It is that this great Savant, who justly may be considered as one of those bright but rare lights placed here and there on the route of humanity to guide it in its march towards progress, had at the same time an elevated mind, and was an artist in the highest and most entire acceptance of the word.

He knew the museums of Europe as few knew them, even among those who make a profession of art, and many a time during the familiar chats at his receptions, we have seen him astonish well-known artists by the extent of his special knowledge. He would have made an excellent expert in painting. It was play to him to guess at first glance the signature of any picture, and more than once at his patients, the consultation done, the inquisitive artist, which was never completely supressed in him, would reveal itself, and, with a word would define—diagnosticate so to speak—the different pictures that fortune placed in his way. He loved art as he loved science. And he introduced in its study the same logical and clear methods. He did not admire what he did not understand. In his eyes superficial and brilliant artistic qualities had no value if they did not rest upon a deep and serious knowledge of art and its technicalities. He considered the sketch as the fundamental basis of painting and the work as a first condition or masterpiece. He did not disdain color. He had for Delacroix a profound admiration, and guarded as a treasure, in the drawer of his bureau, an original album of this master, filled with water colors and sketches taken in Morocco.

His musical education was not less, following always the same tendencies of his mind; the new school did not attract him. He retained his preference for Glück, Beethoven and Weber.

In literature he had three favorite authors and he never tired of re-reading their work, from which he freely quoted passages in his courses, these, were Shakespeare, Dante and Rabelais.

But it is not without interest to add that, in regard to painting and sketching, he did not content himself solely with admiring; he himself practised, and not without success. The sketches, which he exhibited in his courses, which illustrate his books, have been much admired. On each of his numerous voyages he made many notes and sketches.

At his own home he loved to employ his leisure hours in works of art. He twice copied the celebrated enamels of Léonard Limousin, representing the twelve apostles, one on *faience*, nearly in the figures of the original; a second time, not so large, in enamel on copper, and these enamels formed part of a beautiful *renaissance* furniture in dark wood. He reproduced the *danse des fous* of Albert Dürer on large plates of *faience*, which decorated one of the *façades* of his residence at Paris. He painted a complete porcelain service, the subjects being from original sketches taken in his travels.

Those who visited his two residences, that of the Boulevard St. Germain and Neuilly, can form some idea of the elevated mind which knew how to create such surroundings. One could almost say that he had founded in his home, a veritable school of decorative art. There was nothing ordinary in the sumptuous furniture, in this collection at once so harmonious and so varied.

Everywhere one found his tastes, his preferences; everywhere was revealed the personal and original character of the master. These numerous objects, this furniture itself, among which are found some true artistic master-pieces, have their history; they are souvenirs of travels, or specimens interesting for various reasons; better than that, they are original works made by him or about him. Because, under his inspiration, or, to speak more correctly, under his direction, his wife and his daughter, Mlle. Jeanne Charcot, cultivated, with indefatigable ardor and unmistakable success, the most varied arts. To cite only one example: the decorative paintings of the ceiling in his magnificent consultation room at Paris were entirely executed by Madame Charcot, under the guidance of her husband. He loved art in all its forms, and he knew how to make his apartments a true museum of art, in which the family life is so apparent. But he was neither a collector nor arranger; before everything he wished to enjoy the objects which he accumulated about him. He was an artist, a *dilettante*. Such artistic qualities could not injure the savant, they only perfected him.

In his scientific conversations, in his courses especially, the artist was revealed; he knew how to give to his demonstrations an extraordinary lucidity. In the art of teaching he had no equal, and there his secret was originality. He knew how to give in science an important and legitimate place to the figurative document. Finally, he left two remarkable studies which are well known, "*Les Démoniaques dans l'Art*" and "*Les Difformes et les Malades dans l'Art*," in which art and science each took their part. M. Charcot was certainly, in later times, the greatest personality, whose entire career shows to what point science and art, far from injuring one another, are attached by the closest ties.

All M. Charcot's forethought was directed, latterly, towards his family; to his son Jean in particular, whose scientific future he wished to assure before he died. He is no longer here to act. But the illustrious memory of his father, the recollection of the immense work he has done, will make it the duty of the master's pupils—and they will not fail in it—to undertake the guidance which death prevented him from fulfilling. Jean, besides all the knowledge acquired under the eyes of such a father, by his love of work, is one of those who understand, if necessary, how to direct themselves. He will profit by the large quantity of material accumulated by the master, and which his modesty prevented him from publishing; by his collection of thoughts and chosen quotations, fruit of his daily readings of medical works and literary men, and of philosophers of all countries, composed with all his paternal love. "Jean," said he to Madame Charcot, "will be happy to turn over these volumes, and they will enable him to understand his father better."

Received in the home of the master for twenty-five years, associated with him in his scientific and administrative struggles, witness of the profound affection which united him to his unhappy widow, whose life was so closely connected with his, and to his worthy children—Jean and Jeanne—who are become our best friends; witness of his happiness in his home, among his pupils, whom he considered as members of his family, we have sometimes trembled at the thought of the misfortune which might happen unexpectedly before its time, in the midst of this affection. This misfortune, alas! has arrived.

When one reads his memoir of the end of 1892, formed with such lofty views, written with such simplicity and elegance on *the faith which cures*, and his recent report on the candidature of Lister at the Academy of Science, so clear, so precise, so equitable, one understands that his career was not finished, that he had preserved the fulness of his intellectual faculties and his genius, that he was still able to endow his country with original works, to inspire and guide new generations. One understands that the man who wrote these pages was not yet done, as the infamous and cowardly letters which troubled him too much, alas! reiterated periodically.

The work of the master is solid, imperishable, not because it rests on a hypothesis more or less exact, on theories, on systems more or less ingenious, but on an exact observation a complete and final picture of the reality. More surely, then, than the bronze which awaits him, his numerous discoveries, which made him a man of genius, will perpetuate his name in the future.

In J. M. Charcot, science loses one of its purest glories, France an ardent and zealous patriot and one of her most noble illustrations.

## PROPHYLAXIS IN TUBERCULOSIS.*

BY PETER H. BRYCE, M.A., M.D., TORONTO,

Secretary Provincial Board of Health of Ontario.

*Mr. President and Gentlemen,* — Remembering that it was only in 1882 that Professor Koch gave the world the results of his investigations into the cause of tuberculosis, and that for several years his conclusions were submitted to the keenest scrutiny of the scientific and medical world before their general acceptance by the profession, it must be a cause for sincere pleasure and congratulation that we see within ten years of his discovery the attention of the medical profession and the general and philanthropic public turned in every direction, searching for measures by which consumption, a disease, having thousands of years of a history, and holding in modern days a pre-eminence amongst its fellows as marked as Milton's historic Satan amongst his fellow-ministers of evil, and which has proved so refractory to hitherto known therapeutic agents, may be in some measure shorn of its annual harvest of human lives, and society saved from an economic loss, compared with which any other cause, excepting perhaps alcohol, sinks into insignificance. I do not purpose to enter either into the history of the disease or to present even a *resumé* of the condensed statistics, which are yearly being collected in England, Germany and France, telling both of the mortality of tuberculosis under its various forms, and of the multiplied evidences of its contagious character; but shall only, before referring to the special subject of my paper, give the condensed results of a brief study of tuberculosis, taken from the mortality returns of the Registrar-General's Department of Ontario.

As a matter of interest, I have had collated the number of deaths from tuberculosis proper, or consumption as it has been called, in three old settled counties, during the eleven successive years from 1881 to 1891, and have arranged these so as to show the number of deaths occurring in persons of the same family name and the specific year in which each death occurred:—

*Deaths from Consumption during Eleven years in three Ontario Counties.*

| Counties. | Total number of deaths. | Total names. | Total names repeated. | Per cent. of whole deaths occurring of names repeated. | Average number of times each name is repeated. | Total names occurring in the same year. | Percentage of total number of deaths from all causes during 11 years. |
|---|---|---|---|---|---|---|---|
| Welland | 404 | 285 | 71 | per cent. 25 | 2.67 | In 1 case four occurred. | 10.21 |
| Prince Edward | 330 | 198 | 86 | 43 | 2.53 | In 3 cases three " | 11.3 |
| Lincoln | 450 | 330 | 195 | 43 | 2.6 | In 23 cases two " | 9.9 |
| | | | | | | In 22 " three " | |
| | | | | | | In 2 " two " | |
| | | | | | | In 30 " two " | |
| | | | | | | In 1 case three " | |

In case this table does not bear sufficient evidence to convince everyone of the real contagiousness of consumption where common residence is prolonged, I have prepared from the total mortality returns of the Ontario Institutions for the Insane for 1892, giving the total deaths in a population of 4,231, the following table, showing the years of Asylum residence and the proportion of deaths from consumption amongst all patients so domiciled and having been confined during the same number of years.

By reference to the Annual Report of the Inspector of Public Charities for 1892, it is found that there were returned from the various hospitals in Ontario 11,404 cases as admitted, and that of these there were 11,008 suffering from

* Read before the Canadian Medical Association, London, September, 1893.

*Table giving the total Deaths in Ontario Asylums (exclusive of Mimico) during 1892 from Tuberculosis in a population of 4,231, the total Deaths from all causes being 211.*

| Period of Residence. | Total Deaths. | Deaths from Tuberculosis. | Percentage of total deaths. |
|---|---|---|---|
| Under 1 year ..... | 72 | 7 | 9.7 |
| Between 1 and 2 years.... | 25 | 5 | 20.0 |
| " 2 and 3 " ... | 40 | 9 | 22.5 |
| " 5 and 10 " ... | 19 | 10 | 52.6 |
| " 10 and 15 " ... | 16 | 6 | 37.5 |
| " 15 and 20 " ... | 15 | 2 | 13.3 |
| Over 20 years..... ..... | 24 | 2 | 8.3 |
| Total..... ..... | 211 | 41 | 23.4 |

various enumerated diseases, leaving 396 of which no record is given. An analysis of these diseases gives the following:

| | |
|---|---|
| Caries | 127 |
| Necrosis | 75 |
| Rickets | 12 |
| Synovitis | 40 |
| Hip Joint disease | 78 |
| Tuberculosis of joints | 19 |
| Tuberculosis of glands | 4 |
| Chronic bronchitis | 106 |
| Tuberculosis | 353 |

Under tuberculosis, are included diseases returned as hæmoptysis, laryngeal tuberculosis and tubercular phthisis. In addition to the above list of pneumonic diseases, there were 197 cases of acute bronchitis, and 277 of pneumonia. Of course it is impossible to state how many of the latter proved to be tubercular, but we may fairly assume that there were at least as many tuberculous cases as are included in the above list. Of these the first six cases, amounting to 350 cases, may beconsidered as not being infectious under ordinary conditions, while the latter three classes, including 353 cases of tuberculosis, may be considered as being most infectious. In other words, five per cent. of the total inmates of our hospitals suffered from this contagious disease. This would mean that there would be one infectious tuberculousis case for every ward of twenty beds. Doubtless most of these cases were charity patients, as it is not a common occurrence for the well-to-do tuberculous patients, to go to the hospital for treatment, and so would be in public wards.

With these abundant facts before us we may properly conisder the question not of whether prophylaxis against tuberculosis is necessary and in the demanded public interest, but of whether it is possible in practice, and whether methods scientificially praticable are likely to receive legislative support and popular approval.

It is manifest that as with the other contagious diseases the elements in prophylaxis partake of there qualities, viz., individual, municipal and governmental.

With regard to individual prophylaxis it is manifest that its extent will depend wholly upon the intellegence of any infected person, his habits of life, and the extent to which he is impressed with the duty of protecting others.

As to municipal prophylaxis, its first measures must be largely of an improved local sanitation. Everything from the drainage of soils and disposal of sewage and refuse, and supervision of the construction and plumbing of houses, to the inspection of factory operatives and work-rooms generally where numbers are aggregated may very properly be included under this heading.

Regarding governmental prophylaxis, it may be said that its scope would seem to mainly consist in giving direction, financial support where necessary, and legislative sanction to municipal efforts for the limitation of the disease in such directions as already indicated, and in addition thereto, in more extended efforts, such as institutions intended especially as homes and hospitals for the tuberculized.

In approaching this latter point in the question of prophylaxis, I am free to confess that had I not been an interested and to some extent an active spectator of scientific progress during the last twelve years, and of the close touch which legislation in Ontario has kept with public and professional opinion during this period, I would feel that I was but giving expression to schemes as visionary as modern attempts to discover the

elixir of life, or as the thaumaturgy of the rain-maker of Texas.

When I recall to your recollection the provision which exists for the treatment and care of the insane, of the blind, and of the dumb, the orphanages, industrial schools and various reformatories, the numerous hospitals and charities, the houses of refuge or poor houses, and last, the Act of the past Session, for taking care of neglected or orphaned children, the expenditure for all which, by the Ontario Government alone, reaches annually $1,453,216.14—it becomes manifest from these *faits accômplis* that there are but two limits to this class of social, municipal, and governmental work, viz., the degree to which the public are informed regarding the need for work in this direction, and the extent of municipal and governmental financial ability.

Some may, indeed, realize what has been to some extent true, that the immediate cause of much of the public provision for the various defectives of our complex social organism has grown from the idea that it belongs to the police functions of the state; but we have only to examine the names on the boards of trustees and directors of any of the numerous institutions in our cities and towns, to realize that it has been still more largely due to the work of humane and Christian ladies and gentlemen, whereby these monuments of a people's happiness and enlightenment have been raised.

So much then for the argument as to the possibility of the scheme, and now a word as to the scheme itself.

It is unnecessary to refer to the various stages in the progress of disease in tuberculized persons it is enough for our purposes to realize two facts, first, that we desire, so far as possible, to establish conditions favorable either to the cure or, at least to the arresting of the progress of the disease; and second, that we desire, so far as possible, to lessen the danger to the healthy public, arising from cases where destruction of tissue with consequent expectoration are present, and at the same time to prolong the life of the unfortunate suffer, and to make life as pleasant for him as possible in his declining strength.

How then are we to succeed in the first matter? Undoubtedly all will agree that there are climatic conditions, whether at home or in other countries, specially favorable for the residence of consumptives. To these the physician will send the patient, if the patient be financially able to bear the expense. Hence we have sanitaria being established and advertised everywhere; and without doubt many of these play an important part in the treatment of the disease.

But what have we in Ontario? Are our climatic conditions here so unfavorable for the residence of consumptives that their transportation for life becomes in every case a necessity if recovery is desired? I think there is no person prepared to go this far; and personally I am convinced from our statistics of deaths, that in the higher altitudes of the Province we have a climate fairly satisfactory for residence in tubercular cases. But we must assume for practical purposes that each county or group of counties can find within their own borders, or within easy access, a locality favorable from the standpoints of altitude, dryness of soil and atmosphere, and protection by hills and evergreens, for the establishment of a county or district home for the tuberculized. It is not necessary here to go into the details of such a home. I assume that it will be what the name implies, a place where the tuberculized may go and live, enjoying every advantage which climate, food, housing, occupation and medical supervision can give for their restoration to health; while at the same time they will not be a menace to the public. My idea on the one side already exists in the practice as seen in the selection, purchase, maintenance and control of our County Refuges; while on the other such home must partake of a more active and progressive industrial character, to which must also be added a more specialized medical treatment.

Except in the matter of these homes being supported by county funds, and so far as their purchase and equipment are concerned, it is my belief that such homes will, to a very considerable degree, be self-sustaining. When we remember how, by necessity, a consumptive father or mother, brother or sister, continues day after day for months, his daily task for the support of himself and those dependent upon him, it is not difficult for us to believe that in the out-done occupations of agriculture, horticulture, etc., a large number of persons can be pleasantly and healthfully engaged; while for inclement weather, work-shops for various industries would supply remunerative occupation.

When such provision for the tuberculized becomes possible through public benevolence and Governmental sanction and support, we may very properly demand that municipal supervision of the places where the tuberculized are employed, shall be exercised. Where aggregation in workshops in any degree existed, it would be then reasonable to expect that such authority would regulate employment in such cases in the interest of the public health.

In order that municipal authorities be placed in a position to take systematic action toward the supervision of the tuberculized it is apparent that householder and physician should notify the town clerk or other proper officer of cases whenever they exist in any house.

That such homes as we have spoken of, if established, would be popular, may be concluded from the success of such private or semi private institutions in Germany and elsewhere—notably one in Westphalia, for epileptics—and that in this direction we may expect results greatly more beneficial both to the patients and the public, must be the strongest reason why such a scheme as outlined herein, should receive the heartiest endorsationof this Society.

## BACTERIOLOGICAL NOTES.

BY E. B. SHUTTLEWORTH.

Numerous methods have been proposed for the differentiation of the typhoid bacillus, but, after prolonged trial, they have generally been found untrustworthy. The invisible growth on potato has been most relied upon, and is commonly accepted as sufficiently diagnostic. On an exposure of three or four days, after inoculation, there does not appear to be any visible growth, but, if a little of the moist, shining surface is removed. and examined under the microscope, it will usually reveal the presence of the bacilli, with their characteristic motility. Unfortunately, however, under certain conditions not yet perfectly understood, this invisible growth does not take place, and, to make matters worse, it has been found that some bacilli, other than that of typhoid, will grow on sterilized potato in a precisely similar manner.

Mr. Geo. W. Fuller, S.B., biologist in charge of the Lawrence Experiment Station, Mass., has given several months' close study to this matter, and, in the report of the State Board of Health for last year, details the results of his experiments. Having fully assured himself of the unreliability of the potato test, he sought for other means of differentiation, and, according to his statements, succeeded in discovering several methods which, taken together, may be accepted as trustworthy and conclusive.

The water of the Merrimack River, from which the City of Lawrence derives its supply, was found to contain at least five species of bacteria capable of forming the invisible growth on potato. The methods given are sufficient for the differentiation of the typhoid bacillus from these, but, as the author rightly observes, there may exist forms in other water to which the tests would not apply.

The modes of diagnosis referred to are, after non-liquefaction, (1) non-coagulation of milk; (2) non-formation, or production of only a very slight amount of acid in milk; (3) production of a turbidity, without gas, in the test originally proposed by Dr. Theobald Smith, of Washington. In applying the first method, the tubes, previously charged with milk of proved sterility, are inoculated and allowed to grow for two days, at 38° C., or four days at 20° C. They are then examined for coagulation, after which they are placed in boiling water for five minutes, and the coagulation, if any, again noted. This treatment with boiling water renders the diagnosis more certain. The confirmation, by direct estimation of the same sample of milk, by titration for acid, using phenolphthalein as an indicator, constitutes the second test. The method of Smith is carried out by the use of a gelatine medium, alkaline, of course, and containing two per cent. glucose, one per cent. peptone, and five-tenths per cent. of common salt. This is placed in U tubes, similar to those used for the fermentation test of urine. The tubes are plugged and sterilized, all air collecting at the top being removed. They are then inoculated, and development allowed to proceed. If the typhoid bacillus is the organism present it will grow into the closed arm of the tubes, producing turbidity, without the formation of gas.

These methods are particularly applicable in distinguishing *B. typhi abdominalis* from *B. coli communis*. The latter organism produces coagulation of milk, and forms an appreicable amount of

acid. The former does not coagulate milk, and the amount of acid produced is very slight, or none at all In the Smith test the colon bacillus causes a turbidity, as in the case of the typhoid organism, but gas is also produced. Mr. Fuller found that both bacilli reduce nitrate to nitrite in a peptone solution. In examining water for the typhoid bacillus the author follows the practice of other bacteriologists who make a specialty of water analysis, and uses agar cultures, at 38°C., instead of gelatine plates. In this way the growth of many water species is inhibited, and the work of isolation much shortened. Samples may be fished from a colony on such a plate, and at once transferred to Smith's tubes, when the diagnosis may be soon after made and confirmed by the other tests.

Some of the characters of *B. typhi abdominalis* may be usefully reproduced. When grown on agar, for a week, at 20 °C., it appears as a plump bacillus, about one micron in length, and six to eight in diameter, and with rounded ends. In bouillon, at blood temperature, after two days, it is rather more slender, and from one and a half to two and a half times larger. Neither spores nor involution forms have been observed. Although the bacillus generally shows lively movements of rotation and translation it is much influenced by conditions of growth, and in agar cultures, at 20°, motility is sometimes sluggish or absent. The bacillus will grow at temperatures ranging from 10° to 45 °C., but its optimum is between 37° and 39°. It grows better in liquid than solid media. On gelatine plates, at 20°, after 48 to 72 hours, the deep colonies are small, white, spherical, or spindle-shaped, and sharply outlined, Superficial colonies are larger, bluish white, with slightly irregular outline, and, under the micrscope, show ridges or folds. In tube cultures there is a moderately conspicuous, gray growth in the stab, with a thin, gray superficial growth and irregular outline, spreading to the wall of the tube. On the agar plate at 38°, the surface colonies are slightly irregular, bluish white, sometimes, as in the gelatine plate, with a white centre. Deep colonies are yellowish white, and usually oval. The bacillus never liquefies gelatine.

The demonstration of the cilia of bacteria is not only a test of skill in staining, but also of the excellence of a microscope. A clever operator, a good method, and a perfect objective, are essentials to success. Lœffler's method is generally adopted, but has the disadvantage of not being applicable to all kinds of organisms, and thus requires modifications in the degree of acidity or alkalinity of the solutions used. MM. Nicholle and Morax have recently published (*An. de l' Inst. Pasteur*) a method, based on that of Lœffler, but said to be adaptable to all cases. A mordant is prepared by mixing 10cc. of an aqueous 20 per cent. solution of tannin ; 5cc. cold saturated solution of ferrous sulphate ; and 1cc. of a saturated alcoholic solution of fuchsin. A little gelatine culture is diluted with water, spread on a cover glass and allowed to dry. A drop of the mordant is put on, heated to staining and then washed. This is repeated three times. Finally, Ziehl's carbol-fuchsin is applied, and heated till vapors arise, as in staining *B. tuberculosis*. The specimen may be now washed and examined.

The necessity for the presence of moisture, in rooms subjected to disinfection, is emphasized by the recent experiments of Chamberland and Fernbach (*An. de l' Inst. Pasteur*), in which dry germs were found to be much more resistant to heat than those which were moist. The former retained their vitality for several hours, at 40° to 50° C., while a few minutes' exposure sufficed to destroy moist organisms. *B. subtilis* was selected as being exceedingly resistant—of course, principally from its spores—and other hardy forms, as *B. anthracis* and *B. typhi abdominalis*, were also made the subject of experiment. The organisms were soaked in water for about an hour. A practical lesson to be derived from this observation is the necessity of spraying the walls of rooms before the application of disinfectants. A rather curious statement is made by the authors—that concentrated solutions of chlorinated lime are less active than those which are diluted ten or twenty times. A 1 in 12 solution, diluted to ten times its volume, was found very effective.

A suggestion which promises some advantages is made by Beneke (*Cent. f. Bakt.*), who recommends that the stab in gelatine tube cultures be made down one side, close to the glass, instead of down the axis of the cylinder. He claims that in this way the various manifestations of development may be more easily made out. Of course, against this, there is the disadvantage that, heretofore, all described characters and illustrations

have reference to the axial stab, and, moreover, the shape of the cup, pocket, or stocking of liquified gelatine is often very characteristic. On the other hand, a side stab affords a means of microscopical examination from the outside which might often prove useful.

## Selected Articles.

### THERAPEUTIC REFLECTIONS.

The prudent merchant resorts from time to time to an inventory of his obligations and assets, in order that he may diminish the former and increase or enhance the value of the latter. It would surely inure to the satisfaction of the physician and to the advantage of his suffering clients, if he would follow this example. This I propose to do, asking your indulgence if I bring before you true observations and experiences which are not novel to you. Indeed if my remarks call forth a responsive echo in your minds, this will demonstrate that I have truly given voice, as is my intent, to actual observations at the bedside. From such I propose to draw lessons and to elicit discussions, which may enable some of us to leave this hall better armed for the battle with disease and death which we are daily waging.

Enthusiasm in therapeutics is indeed unwarranted, for the history of medicine abounds in the rise and fall of the most brilliant structures, in the explosion of the most plausible theories, and, what is more painful than all else, the overthrow of remedies which have seemed to be so firmly intrenched in the minds of the foremost physicians for so long a period that they seemed impregnable against all attacks. I need but call from the shadows of the past the spectre of venesection. Though hoary with age, and lauded by men whose works are to-day revered, this therapeutic flower withered under the light of modern physiology and pathology.

Another remedy, once the sheet anchor in many serious diseases, has been dethroned and has taken the subordinate though most useful position of a simple anodyne.

Time was when in certain forms of peritonitis opium was the chief remedy, because it "acted as a splint to the inflamed surfaces;" to-day, Lawson Tait's teaching, that it is dangerous and that the opposite treatment by saline purgatives is more useful, is most successfully followed. Let him who grows fulsome in his laudations of a remedy, bear in mind how these mighty giants have fallen and endeavor to rescue the remedy he espouses from a similar fate by judicious tests and unprejudiced comparisons. What is the status of therapeutics to-day? What are the assets with which the physician may meet his daily obligations to cure the sick?

Let us confess that the materia medica consists chiefly of medicinal agents, whose action on the human body, with the exception of very few, is uncertain, and whose effect upon disease is either neutral or unreliable. How often can we conscientiously say that we have accomplished, by means of any medicinal agent or combination of such agents, the cure or removal of any disease? With the exception of quinine, and perhaps of mercury and the iodides, there is not a single medicinal agent which may be regarded as actually curative. And yet we constantly meet intelligent physicians who insist upon the contrary, and in so doing neglect remedies that are more valuable because their action is clearly explicable upon rational principles. Faith in drugs is almost as frequent among physicians as faith in being drugged among patients. As an illustration I would refer to a case of acute entero-colitis in a child which I saw recently in consultation with a gentleman who is justly esteemed by colleagues and patients. The usual symptoms, fever, a large number of evacuations, loss of sleep and appetite, etc., were present. Upon the antiseptic theory salol had been frequently administered; to meet other symptoms bismuth, Dover's powders, and other remedies. The simple substitution of intestinal irrigation for the salol, together with an abolition of the milk diet, produced a complete change in this case. It may be held that the latter course is that recognized as proper at the present time. But I cite this case to show that it is not so universally recognized as it should be, and to illustrate the difference between medicinal and non-medicinal remedies for the purpose of emphasizing the chief point of this paper, viz., the too frequent neglect of those non-medicinal agents, whose action in disease is so simple, rational and clinically effective, and the unhappy reliance on pharmaceutical preparations whose effect, like that of salol, as an intestinal antiseptic, has never been definitely proven. The vast majority of remedies in our pharmacopœia have no better foundation than salol, and yet they are constantly used upon the strength of so-called clinical observation.

The rock upon which therapeutics has always split, and which continues to menace us because we seem not to profit by the teachings of history, is the treatment of symptoms. In my student days, when venesection was in its last gasp, veratrum viride had in the South gained many adherents. A rapid pulse was the chief manifestation of all fevers; here was a remedy which in small doses perfectly controlled the pulse. A reduction to one-half of its rate could readily be produced. I shall never forget one of the first cases of pneumonia which I treated as house physician of a hospital.

Veratrum was given until the pulse was reduced from 140 to 80, and yet the consolidation continued to the bitter end, and the patient succumbed with a normal pulse. History repeats itself in the application of the coal-tar antipyretics recently so much in vogue.

The temperature may be readily reduced from 105 to 100, and, as in the case of veratrum, we may even have the questionable satisfaction of seeing the patient die with a normal temperature. This striving after symptomatic remedies is the unhappy legacy which our forefathers have bequeathed to us. It is an echo of this mysticism which veiled their idea of disease and which led them to regard the latter as an essence rather than as a manifestation of certain disturbances in the economy which rendered the latter incapable of regulating its functions. Therapeutics would be a simple art in this day of patent medicinal agents, could its aims be merely filled by meeting certain symptoms or certain definite alterations in the functions of the body.

As pathologists it is our function to discover changes in the organs, but as physicians who stand at the bedside of those who implore us to heal them, we can accomplish but little if we are called to act after these changes in the tissues have taken place. As has been well said by another, the physician who is called to combat a case of well-established organic disease with remedies may be likened to the sanitarian who is called upon to prevent an infectious disease by disinfecting the emanation of the patient. The physician who would cure, must assume the task early ; in the beginning of that anomalous relation between capacity of the system for work and the demand upon it for work which is really the inception of all tissue changes and which may be prevented by limiting the labor imposed upon the organs. To discover this anomalous relation in its incipiency, and to guard against its development into organic disease, is the function of the true physician. The latter must soon discover that in this contest medicinal agents play an unimportant rôle when compared with those methods which we learn by observation of nature's course in health. As an illustration may be mentioned dilatation of the stomach, an organic alteration which is most commonly the result of long-continued insufficiency of its functions. The early recognition of the causes, the adaptation of diet, mode of life, manner of eating, gastric lavage, etc., to each individual case, will conduce far more to the prevention and cure of the organic disturbance than all the medicinal agents, from ancient gentian to modern strychnine, from muriatic acid to pepsin. No physician of experience can gainsay this proposition. It must be patent to the most enthusiastic poly-pharmacist that he accomplishes only an amelioration or removal of certain manifestations of disease—a result which may and probably does facilitate a restoration to health, but is rarely if ever the direct means of such restoration.

In the large preponderance of acute diseases, among which may be numbered all infectious diseases, the administration of these medicinal agents is not only entirely symptomatic, but in many instances absolutely harmful. Take as an example a case of appendicitis. The tendency to treat such a case as localized peritonitis and to meet the symptoms tempts the average practitioner to prescribe morphia to subdue pain, ice or poultices to the right iliac regions, food to satisfy the bugaboo of coming failure of the vital powers, and an antipyretic to reduce the temperature. This is not a fancy picture but a chapter from personal experience. Coming into contact with such a case as a consultant, how can the latter take his bearings? Like a mariner in a fog he is handicapped, pain is absent, temperature perhaps normal, all is serene, except the anxious countenance, perhaps vomiting, and the attendant's fear that some ill may be brewing. Here the remedies employed have hidden the enemy's movements, the physician has become the ally of the disease ; diagnosis and prognosis become difficult, and valuable time may be lost. I am sure many of my hearers have passed through this experience. Am I presuming too much then, if I counsel that in the early stage of disease, the warning of Italy's lamented clinician, Cantani, be constantly before our eyes, "Nil Nocero." To make a clear diagnosis is important for a favorable issue. It is better for a patient to suffer some discomfort than to have his life jeopardized by remedies which obscure the real issues of the case. Later in the case, too, it should be our constant endeavor to avoid damaging the system which is staggering under disease and cries out for every possible aid on the part of the physician. In this day of powerful symptomatic remedies, veratrum for the pulse, antipyretics for the temparature, pilocarpin for the secretions, morphia for the pain, chloral for sleeplessness, all agents which strike mighty blows at the manifestations of disease, often lead to disaster by lulling the physician into a false sense of security. And yet how eagerly they are resorted to, daily observation teaches but too sadly. It may be urged in defence of such a course that the patient and his friends are importunate to have the pain, the fever, etc., combated. Medicine is a business, said a gentlemen in a recent discussion on antipyretics, and we must yield to the demands of our patient to be relieved of his fever. It has doubtless been your experience, as it has been mine, that much can be accomplished by placebos, by mild remedies, by gentle reassurance, and by taking the friends into our confidence.

When there is severe pain, as in some cases of appendicitis, I prefer to keep the patient gently under the influence of chloroform until a decision for or against operative measures can be reached.

In a case of perforating appendicitis at Long Branch, two years ago, morphia administered by an able colleague was discontinued, chloroform substituted for twelve hours with intervals, until Dr. Wyeth arrived. The patient was not aware of his arrival, nor of the laparotomy performed on her until an hour afterwards. She made a good recovery. Ten year's ago the belief had become all but unanimous that the only direction in which therapeutic effort was conducive to the patient's benefit lay in following the tendency of nature in each disease. *Vis medicatria naturæ* is an old rallying cry of the profession, but one which did not gather many steadfast defenders. At one time a complete therapeutic Nihilism, emanating from the Vienna school, threatened to become its expression. But when the chemist evolved those potent therapeutic sledge-hammers which could beat down symptoms, the gentle hand-maiden Nature was thrust aside, and the patient was beaten down with the symptoms. To-day a reaction is happily setting in. Once more are heard warning voices that bid us follow Nature's prompting. To join these and to re-echo them in these halls, is the purport of my paper to-night. For instance, rest is the first prompting of nature in diseased conditions. What can be more simple and obvious than rest in inflammatory conditions? The surgeon puts an inflamed joint into a splint and trusts to nature, *i.e.*, the restorative powers of the system to heal the disease. May not an acutely inflamed kidney be treated in a similar way? Its functions must go on, in this respect it differs from the inflamed point. But the intelligent physician, knowing that the chief function of the kidney is to eliminate urea, so arranges the patient's diet that this work is reduced to a minimum; knowing that other functions of the kidney may be vicariously taken up by the skin and bowels, he endeavors to utilise these vicarious eliminants for the purpose of relieving the inflamed organ from labor. And yet we find the contrary so often that I may be pardoned for emphasizing here the necessity, nay the duty, of doing in internal diseases what is so obvious and so successfully done in external diseases. Only recently I saw a case of acute nephritis with a well informed physician of ten years' graduation from a most exacting school, a hospital physician too, who treated the case with digitalis and acetate of potassium as diuretics, because the secretion was reduced to nineteen and a half ounces, paying no attention to the physiological aids which nature points out.

In acute conditions rest must be provided; in chronic conditions rest, judiciously alternated with gentle exercise of the functions of the diseased organs, is indicated, and will prove far more useful than medication. Let me not be understood, however, as despising the latter. There are few to whom I should be willing to yield independence upon our well-tried medicinal agents. But I spurn them if their action is based on empirical observation alone, the *ipse dixit* of one or more men.

Those medicines alone which evince their presence in the system by certain definite signs, have my confidence. When quinine is administered in sufficient doses to cinchonize the patient, I know, without fear of contradiction, that whatsoever effect is produced on the paroxysm may be attributed to it; when it is used in small doses three times a day, for so-called malaria, I spurn the remedy as I do the disease. True malaria will as surely yield to cinchonization before the paroxysm, as spurious malaria (the so-called civic or international malaria) will fail to yield to it. This much I may say positively, from a long experience on the banks of Southern rivers.

(*To be continued.*)

## SHOULD EXPERIMENTS ON ANIMALS BE PROHIBITED BY LAW?

Under the above title, Dr. Armand Ruffer has published an article in the current number of the *Liberty Review*, in which he again discusses, "as dispassionately as possible, the morality and utility of experimentation on (living) animals." He thinks that "the storm of the last Church Congress has blown over," and that a time is therefore come for a calm survey of the results.

There were many physiologists who regarded the prospect of the debate at Folkestone with grave apprehension, and were disposed to think that experimentalists like Mr. Victor Horsley would be ill-advised if they threw down the glove in such an arena. It was feared that there would be no fitting tribunal to judge of the matter, perhaps not even a just moderator to ensure fair play; and that ill words might be spoken on both sides with little or no good result. In such a temper as this some eminent physiologists declined to be present, among them one whose experiments upon dead animals had been held up to execration as vivisection of the worst kind, and who to this day has not thought it worth while to publish any correction of the blunder. But they will have changed their minds; we now see that fierce words are not always mischievous, and that violent disputation does not always darken counsel. We confess that in the earlier years of the antivivisection crusade the physiologists had not carefully avoided all cause of offence in word; we thought some harm had been done at first by too polemical a tone on their part, and we still think so; but our opinions are modified. Their indifferent attitude towards the antivivisection party in later years we see was misinterpreted, not by thoughtful opponents, who were beginning to see in this

attitude the calmness of conscious moral strength; but arrogant and ignorant opponents, who became puffed up and insolent.

The fearless challenge to these persons and the exposure of their methods produced a great effect upon the Congress as a whole, and even produced something like a panic among the antivivisectionists themselves. Those of them who are unaccustomed to the restraints of good manners, who are aware of no obligations in respect of truthfulness, and who feel themselves at liberty to indulge their tempers by reckless aspersions upon others, have been dismayed, not by the revelation of their own hollowness—of this, unfortunately, they cannot judge—but by the discovery that they are not always to be treated with contempt, but at due times with chastisement. Of these people we hope nothing and fear nothing; we look entirely to that great body of men who happily preserve an equitable mind; and we note with as much pleasure as surprise that among these a marked re-action has taken place; the current quips at the expense of physiologists have ceased, and an impression is abroad that the case of the physiologists is stronger and that of the abolitionists far weaker than they had supposed.

For such readers—readers open to moral and rational conviction—Dr. Ruffer's paper is well fitted. On the whole it is as dispassionate as it claims to be, but we think such phrases as the "unscrupulousness of professional agitators and so forth," are better henceforth avoided; many thoughtful and scrupulous men are opposed to us in this matter; if there were not the agitators would soon disappear.

Dr. Ruffer sets forth the well known arguments with care and point. He repeats that if therapeutics are to advance, and advance must be (1) by experiment upon man, or (2) by experiment upon animals; and that new methods and agents are not to be tried on man until we gain upon animals some knowledge of their working. "In the end," he says, "the experiment must be made on man, but when this is done let us have all the trumps in our hands." The author deals next, and deals ably, with the very proper objection, that we cannot argue from the lower animals to man. Dr. Ruffer seems to us to answer this objection sufficiently; some of his freshest sentences are those in which he shows, amid the many superficial differences of pathological processes in living creatures of various classes, that "at bottom, life, both in the vegetable and animal kingdoms, is influenced in the same way by the same reagents." This proposition Dr. Ruffer illustrates by effective instances. Dr. Ruffer also enforces the tremendous truth that "a year's delay in any advance of medicine really means the sacrifice of thousands of lives." That experiments upon living animals do aid us largely in interpreting the laws of life and death, Dr. Ruffer of course re-asserts, but we believe this point is no longer contested; the anti-vivisectors—we mean our thoughtful and considerate opponents—now stand on the plain issue that, granting any success of the methed, the means are not justifiable. This, if we mistake not, is the position of the *Spectator*. To us there can be but one repiy to such a proposition.

Dr. Ruffer could not overlook the repartees about the butchers and the sportsmen; perhaps his paper would have been incomplete without them, well worn as they are. Yet we must admit these retorts do not touch the heart of the matter, being of the nature of mere *tu quoques*, that is, effective in a polemical and not in a philosophic sense. The meditative man may effectively reply that butchers and sportsmen are survivals of barbarism whom he does not defend, or whom he will leave for the present out of the question; that shooting and hunting are becomlng every year more difficult of attainment, and are being largely supplanted by athletic sports; or, again, that vivisection revolts his conscience, while hunting and shooting do not; his conscience being, so far as he is aware, in a healthy state.

It is some answer to this objector to contend that use and wont are largely concerned both in the direction of public opinion and in the formation of the private conscience, and that aversion from vivisection will diminish when the public are as used to it as they are to the infinitely greater liberties of the sportsman. Still, this answer is not sufficient; an aversion is felt by reasonable people, which is stronger than mere unwontedness can account for; and how comes this state of feeling? The explanation is no doubt this: that ordinary men take short views of things, and even imaginative men, like Tennyson, for instance, take short views of things of which they know nothing. This may not lie in lack of imagination, bnt in that their ideas are, in certain directions, unformed.

A bishop wants a strong voice; animal food produces a strong voice; then, says the bishop's wife, let a sufficient number of proper animals be killed for the bishop at once. A country man has a wholesome passion for fresh air, exercise, and adventure, and he is a lover of Nature; to hunt a fox satisfies these passions, so the fox is hunted accordingly. "Sensible men" especially take short views of life, and "sensible men" see at once that the end attained is well worth the sacrifice. On the other hand, the physiologist does not by the sacrifice of an animal bring direct aid there and then to a certain person; he may sacrifice the animal and other animals month after month, and year after year, with no immediately obvious service; the physiologist takes a far longer view of his part of life than the ordinary man does or can do. His imagination is fixed upon great

future redemptions and immediate benefits, if any, are attained by the way; at the same time physiologists remember the dangers which lie in long views of life, at least as well as ordinary men remember those which lie in shorter views; they know that, as the largest-hearted philanthropists may neglect the fortunes of their own households, so they themselves might be tempted to ignore the sufferings which have to be passed on the way to future results. They think that the pressure of opinion within their own circle would have been sufficient to prevent pain, to check needless sacrifice, and to economise experiments to the utmost; nevertheless, they are loyally submitting to laws which, although unduly vexatious in some respects, are reasonably intended to secure these ends with due consideration of their own needs, their own honour, and, above all, of the public weal; in return they ask for no more than the ordinary courtesies of life.—E.l. *Br. Med. Jour.*

## CLASS-ROOM NOTES.

In acute obstruction look to the small intestine; in chronic, to the large.—*Prewitt.*

Mild, persistent jaundice is a strong point in favor of hepatic cirrhosis.—*Robinson.*

For the early stage of chronic rhinitis, you may use some detergent wash; later, astringents, as alum, glycerite of tannin or cauterization.—*Spencer.*

When, in the acute asthenic fevers, you find a great diminution or absence of chlorides in urine, you should not fail to make a very grave prognosis.—*Curtman.*

Obstetrics was in labor long, but her child—gynecology—has grown up to a lass of beautifully grand proportions. she, like other children of the present day, is larger than her mother.—*Ford.*

If any one of you, in your researches, ever discovers the real cause of, and formulates a perfectly successful treatment for, infantile constipation, you will cover yourself with glory.—*Robinson.*

The man who operates just because the patient will let him, or because there is a fee in it, or uses the knife just to shine, is surely no surgeon. He's only a cutter. Pray you never do this.—*Tuholske.*

More or less fetor in the lochia was formerly regarded as unprejudicial or as a necessary coincidence, but not so now. When phenol douche fails, then have recourse to a one or two per cent. solution of hypochlorite of sodium as a douche.—*Ford.*

The main indication for trachelorraphy after labor will be found in the persistence of the lochia rutra. I prefer to do it about the eighth or tenth day thereafter, as immediately after delivery the tear is with difficulty made out, and the operation involves needless risk of infection.—*Ford.*

In ovariotomy as in other belly operations, your success will depend upon your ability to recognize and meet many facts which exist, and conditions that may arise. First and foremost is your mastery of asepsis in the case; prominent, are time and amount of anæsthetic consumed.—*Tuholske.*

In diabetes mellitus the following comination seems to do good :—

℞.—Acidi arseniosi, . . . . . gr. 1-24.
Lithii carbonatis, . . . . gr. ii.
Extracti gentianæ, . . , . gr. iii.
M.—Ft. capsule No. 1.—*Steer.*

I think that, in those subject to hepatic colic, and who suffer frequent returns, a pill composed as follows, to be taken three times a day, will do good :

℞.—Fel bovis inspissati, . . gr. ii.
Pancreatin, . . . . gr. ii.
Ext. nucis vomicæ, . . gr. $\frac{1}{8}$ —*Robinson.*
—*Méd. Fortnightly.*

## PUERPERAL ECLAMPSIA: THE EXPERIENCE OF THE BOSTON LYING-IN HOSPITAL DURING THE LAST EIGHT YEARS.

Treatment varies as to whether the invasion is during pregnancy, during labor, or during the lying-in period.

1. *Ante-partum eclampsia.* — The aim is to arrest the convulsion and restore the function o the kidneys without arresting the pregnancy. In hospital practice, in a certain small proportion of cases, well directed efforts will be successful. Briefly stated, the following methods are employed: Ether is used at the first symptom of attack; ether being preferred to chloroform. Chloral hydrate is used as a nerve sedative between the attacks. Morphia is not approved of. To excite the action of the skin chief reliance is placed upon the hot-air bath—or, in mild cases, heaters—with pilocarpine guarded by brandy. Unless the skin responds promptly, the eliminative action of the bowels is invoked by elaterium or croton oil; when the patient is not too unconscious to swallow, milk is given with brandy, if indicated. Cream-of-tartar water is given freely and digitalis in small doses, as heart-tonic and diuretic. Acetate of potash is also used to some extent. If unable to swallow, the patient is stimulated by brandy, digitalis, and nitro-glycerine subcutaneously. Venesection has not as yet seemed indicated.

When it appears best to deliver, as is generally

necessary in severe cases, manual dilatation is preferred. Podalic version and manual extraction are resorted to, unless the head is engaged. During delivery the patient is thoroughly protected from any possible chilling. Thirteen *ante-partum* cases are grouped together, without regard to duration of pregnancy, with a maternal mortality of 46 per cent., and a fœtalof 69 per cent.

2. *Inter-partum eclampsia.* — In these cases delivery is accomplished as soon as possible. After delivery chief reliance is placed on chloral, pilocarpine, hot bathing, or hot-air bath, mild diuretics, and mild stimulation.

In eight such cases the mortality was 25 per cent., both as regards the mother and the fœtus.

3. *Post-partum eclam sia* —The practice of the Boston Lying-in Hospital, in cases where during labor there are symptoms threatening eclampsia, is to allow the labor to terminate naturally, if normal; treatment being directed to allaying nervous symptoms and mildly stimulating the kidneys. In fifteen such cases reported one mother died from œdema of the lungs, convulsions coming on eight hours after delivery with death five hours later, after a number of severe convulsions. The fœtal deaths were two, one from cerebral hæmorrhage on the third day, and the other was non-viable.

In grouping all these cases a maternal mortality of 25 per cent. is reached, and excluding non-viable children a fœtal mortality of 33⅓ per cent., if only the *ante-* and *inter-partum* cases are counted. Taking all the cases the fœtal mortality is 18 per per cent.

*Post-partum* hæmorrhage probably occurred in many of these cases, and it has been the practice of the staff not to check the bleeding at once, in the belief that the lowered blood pressure consequent on a reasonable hæmorrhage is favorable to recovery.

As regards the number of the convulsions, the mothers who recovered had an average of 5.3 convulsions, while those that died had 10.8. Prognosis, however, depends more upon the time when convulsions occur, upon their severity and frequency, upon the length of the labor, the depth of coma, and the degree of kidney insufficiency, than upon the number of the convulsions.

The author strongly emphasizes the necessity of prophylactic measures against puerperal eclampsia.—M. S., *Am. Jour. Obstet.*; *Archiv. of Gyn.*

---

The Treatment of Habitual Abortion by Chlorate of Potassium.—As far as I am aware, there have as yet been no published cases where the treatment of habitual abortion by chlorate of potassium has been successful, or even mentioned. I have, therfore, recorded the histories of the two following cases in the hope that they may be useful to brother practitioners, who, I trust, will try the remedy in their own practice should opportunity offer. Both cases were remarkable in that, although there had been nine premature confinements in the one instance and three in the other, yet after persevering with the chlorate of potassium the delivery of a living child at full term was the result in each case. In my own case there is another interesting point, viz., that although I was continually trying to impress on the patient's mind my absolute certainty of success, yet until she had well passed the eighth month of pregnancy she had no faith in the treatment whatever, for it was her firm conviction that, after miscarrying three times, she would never go the full nine months. As will be seen, the result was agreeably surprising to her. I may mension that this treatment was suggested to me by Dr. Sutherland, of South Shields, whose case is narrated first.

Case I.—A married woman consulted Dr. Sutherland at the end of December, 1892, with regard to her condition, she being then about two months pregnant. The history was that eleven years previonsly she had her last living child, but since his birth she had been prematurely delivered —in the majority of cases at the sixth month—of nine stillborn children. She was at once ordered ten grains of chlorate of potassium three times a day, and she continued to take it, with an interval of a fortnight in April, until the beginning of August of this year, when she, being then at full term, was delivered of a living child. There was a distinct history of syphilis.

Case II.—A married woman came to see me on April 2nd of this year, telling me that she was about four months pregnant, and that she had had three premature confinements, but never one at full term. She was, however, most anxious to have a living child, and was willing to do anything or take anything if only her wish could be gratified. I ascertained that during her first pregnancy she had had a fall at about the eighth month, with the result that labor supervened and a child was born, which lived for two days. She again became pregnant, and at the eighth month, although she could find no cause for it, was again delivered of a child, which was in this instance stillborn. She became pregnant a third time and went seven months only, the child being in this case, too, stillborn. After obtaining from her the above facts, and bearing in mind Dr. Sutherland's case, I advised her to commence at once with the medicine I should give her and to continue it until labor set in. She expressed herself as being perfectly willing to do so, so I commenced with ten grains of chlorate of potassium in water three times a day, telling her at the same time to let me have a specimen of her urine each time the bottle was renewed. On May 11th I found a

distinct haze of albumen present in the urine, so I stopped the chlorate of potassium and ordered her ten minims of tincture of perchloride of iron in water three times a day for about ten days. At the end of that time the albumen had completely disappeared, so the chlorate of potassium was re-commenced. In June I again found it necessary, for a similar reason, to give the tincture of iron the preference for a fortnight. She then resumed her original medicine, and took it constantly till August 11th, when labor commenced, and she was safely delivered of a strong and healthy living female child at full term. She made an excellent recovery, and the infant is all that she could wish. There was no history of syphilis in this case.—Edward F. Pratt, L.R.C.P., Lond., in *Lancet.*

Corporal Punishment in Schools.— After considerable experience of childish misbehaviour and of moral and physical methods of chastisement, public opinion, as represented upon the School Board, has arrived at the decision that coporal punishment my be administered by duly qualified and prudent schoolmasters. Though we do not admit that corporal punishment is at all indispensable to the educational armamentarium, yet as long as juvenile human nature continues to be what it is we may expect that its instincts and inclinations will in a great many cases prove to be too strong and wayward for mere moral suasion. We find this wilful tendency even among the educated and in the adult. To expect more self-control or more intelligence in children would be unwarranted presumption. We can, therefore, support unreservedly the very moderate motion passed at a recent meeting of the London School Board—namely, that head teachers should be allowed to administer punishment when necessary and also to transfer the right in respect of "slight" punishment to properly qualified assistants. Without an arrangement of this kind, the authority of a teacher is limited to mere remonstrance, a means of control which many children would not understand, and which others of them would laugh at. If teachers are appointed to maintain discipline we must in reason and in very decency trust them. We should, for our own part, wish to have some definite interpretation of the term "slight punishment." We presume that it would be merely a punishment sufficient for its intended purpose. Floggings, in the ordinary sense of the term, such as were common in the time of Nicholas Nickleby, are now, of course, utterly unheard of in the days of the enlightened and highly trained teachers into whose care the education of the "rising generation" is entrusted. Such forms of maintaining school discipline excite as much contempt in the mind of the present-day schoolmaster as the proposal to bleed a patient suffering from typhoid fever would do in the mind of the present-day physician. Some further information on the subject of methods is in any case desirable, but we imagine that there need be little doubt that schoolmasters, having now more, though not unqualified, liberty in the matter, will use discretion in the choice of time, means, and points of application.—*Lancet.*

Vasomotor Ataxia.—1. By the term "vasomotor ataxia," it is proposed to designate the condition of instability of the mechanism of circulation present in certain persons, and characterized by abnormal readiness of disturbance with tardiness of restoration, of the equilbrium of the cardio-vascular apparatus. The manifestations are most strikingly displayed in the terminal vessels, and occur chiefly under the action of external influences, especially cold; of toxic agents; and of emotion. The stimulus may be applied centrally or peripherally, but in each case the resulting phenomena indicate a defect of central inhibition.

2. Vasomotor ataxia is in many cases congenital; in some inherited; the condition is not rarely present in several members of a family.

3. In some cases the phenomena are of paretic, in others of spasmodic character. Usually the two kinds of phenomena are displayed in varying degree in the same patient. Whether spasmodic or paretic, the symptoms are suggestive of incoordination.

4. In exophthalmic goitre, especially such cases as are produced by emotion or are markedly intermittent, is found the extreme type of the paretic variety of vasomotor ataxis.

5. The form of Raynaud's disease known as "local syncope" furnishes an extreme type of the spasmodic variety, while "local asphyxia" exhibits both spasmodic and paretic phenomena.

6. Between these extremes are numberless gradations down to the slightest departure from normality, while even the extreme symptom-groups represent merely exaggerations of phenomena that under certain conditions occur in normal individuals.

7. Dermographism is an essential feature of vasomotor ataxia, and in most cases factitious uticaria can be readily produced by cold or by pressure, or by both; mottlings of the skin, certain peculiar markings of the nails, telangiectases, and stigmata, are common.

8. There is usually a hæmorrpagic tendency, as shown by ecchymoses, petechiæ, epistaxis, hæmoptysis, hæmatemesis, hæmaturia, and retinal hæmorrhage.

9. Even in the absence of hæmaturia, red blood-cells are often found in the urine; uric acid, urates, and oxalates are likewise common; the presence of albumen, tube-casts, and cylindroids,

is less common, and is usually intermittent. Glycosuria has been observed.

10. In many striking cases there has appeared to be morbid alteration of the thyroid gland.

11. The action of the heart is usually rapid, irregular, and easily disturbed; palpitation is usually common, and in some cases intermittent tachycardia has been noticed. Hæmic and functional murmurs are not uncommon.

12. Among other symptoms and morbid associations observed are drug idiosyncrasies, urticaria, local œdema, angina pectoris and pseudo-angina, hyperidrosis, asthma, hay-fever, vertigo, migraine, and other forms of headache, transient hemiopia, menstrual irregularities, intermittent polyuria, rheumatism, chorea, epilepsy, neurasthenia, gastralgia, and membranous enteritis—most of which are doubtless related as effects of a common cause or as secondary results.

13. The development of pulmonary tuberculosis in some cases is probably a sequence of vascular and trophic disturbance in the lung.—Solis Cohen, in *Phil. Med. News.*

The Operative Treatment of Peritoneal Tuberculosis. — The value of operation in the treatment of peritoneal tuberculosis in children has been much disputed, and even yet is by no means generally allowed. The numerous cases benefited by laparotomy have been challenged as to correctness of diagnosis and the indications which predict a favorable result not thoroughly understood. The report by Conitzer of seven cases operated upon for tuberculosis of the peritoneum throws some light upon the points in dispute. The children varied from two and a quarter to nine years of age. Four cases were of the exudative form, in which their was a diffuse superficial inflammation of the peritoneum, with numerous very small tubercles upon the parietal and visceral membrane, and free serous fluid in the abdominal cavity. In all of these cases there was but slight disturbance of the general health. Some anorexia and heaviness and disinclination to move about were the chief symptoms. Some of the patients, too, had grey-colored stools, though not otherwise icteric. The other three cases were of the dry adhesive form, in which there was more general disturbance and often pain, and a considerable degree of matting together of the intestines and omentum. The operation consisted only of an incision into the abdomen, and, after allowing the free fluid to escape, closing up of the wound. No washing or manipulation of the cavity was done in any case. The four exudative cases all made a lasting recovery. In each microscopic examination of the tissue showed characteristic tubercular structure, giant-cells, and in two cases the presence of bacilli. The three other cases all showed caseous tubercular nodules with bacilli. One case recovered from the operation, and after four and a half months was still relieved from much of the pain and discomfort, though not at all well. The other two cases died with little or no relief.

After discussing these cases in detail he draws the following conclusions: 1. Peritoneal tuberculosis is spontaneously curable: the dry form in very few, the exudative form in a very large number of cases. 2. All forms may be cured or at least relieved by laparotomy, even when other treatment, including puncture, has failed. 3. The results of the operation depend upon (*a*) the form of the disease, the best results being obtained in the cases of effusion; (*b*) the duration of illness; (*c*) eventual complication. 4. The operation is contra-indicated in advanced cases or those with marked tuberculosis of other organs. 5. No explanation can be given of the reason or manner of the curative effect.—*Boston Med. and Surg. Jour.*

Deep Incision of Cervix and Perineum in Labor.—Duhrssen (*Archiv für Gynäk.*), publishes a highly important monograph on this subject, with statistical tables. He maintains that the practice is invaluable when labor is impeded by resistance of the soft parts alone. As long as the patient is not already in a septic condition, there is no danger provided that strict antiseptic precautions be taken. The practice saves the patient from the risks of Cæsarean section, induction of labor, and craniotomy in all cases where undilatability of the soft parts is the obstacle to delivery. In 27 cases in Dührssen's experience, where this obstacle was overcome by incisions and craniotomy avoided, labor was concluded with the forceps in 24, by turning and extraction in 2, and by bringing down the feet and extraction in 1. Only one mother and one child were lost. Hence, as compared with perforation, the mortality is for the child 96.3 per cent. less, and for the mother it is almost similar, since in 28 cases of perforation the same obstetrician lost one mother. Out of 29 cases of perineal incisions alone, excluding all subjects with obstacles to labour outside the soft parts, the mortality for the mother was 6 9 per cent., and no child was lost. Incisions are most urgently indicated when rigidity of the soft parts exists in elderly primiparæ, or when complicated by eclampsia or premature rupture of the membranes. The supravaginal part of the cervix must be fully dilated, a dilator being used if necessary. External pressure must be employed when the head lies high in the pelvis. In cutting into the cervix four incisions must always be made, and they must extend to the vagina. The posterior should be made first, the anterior last. Suture after delivery is unnecessary. The perineum requires a unilateral deep incision between the anus and tuber ischii. The wound must be very carefully sutured after delivery. Pro

follows this kind of incision. Out of 21 of Dührssen's cases of deep incision of the cervix, 15 patients bore another child about a year and a half later. The labors, which included three miscarriages, were generally easy.—*Br. Med. Jour.*

ALLEGED VICARIOUS MENSTRUATION.—Windmüller (*Centralbl. f. Gynäk.*) aud others warmly debated this question in the course of a discussion on Grassow's paper on amenorrhœa at the Hamburg Obstetrical Society. Windmüller stated that a lady, aged 42, had never seen any vaginal "show" for thirteen years, when periodical hæmoptysis set in and occurred every four weeks, continuing till the present time. The lungs and larynx, as well as the sputum, had repeatedly been examined for organic disease with negative results. There was no hysteria. Seeligman had seen periodical hæmatemesis follow disappearance of the menses. Hot water vaginal injections were prescribed; the normal catamenia returned and the hæmatemesis ceased. He could find no evidence of gastric ulcer. Aly disputed this assertion, and Olshausen considered that amenorrhœa was simply caused by the anæmia which resulted from gastric ulcer. Schrader did not believe in vicarious menstruation. Women with amenorrhœa looked on any kind of hæmorrhage as vicarious menstruation; investigation often proved that the bleeding was merely a coincidence. He often saw amenorrhœa in pupil midwives; it lasted long, and was never accompanied by any vicarious hæmorrhage. Grassow said that such cases were due to altered conditions of life and to psychical impressions. He had seen vicarious menstruation in cases where local conditions had caused the suppression of hæmorrhage from the uterus. Ratgen stated that cases of this condition were chiefly recorded in French literature. He knew of three young girls who repeatedly had hæmoptysis at the menstrual period. Twenty years since a lady, aged 40, used to cough up cupfuls of blood at every period. The patient was still alive and free from any sign of pulmonary disease; she was very hysterical. Voigt had seen similar cases, and in one, still under treatment, there was no sign of any disorder of the lungs or larynx.—*Br. Med. Jour.*

TREATMENT OF SPRAINED ANKLE.—Dr. V. P. Gibney advocates (*The New York Polyclinic*) the treatment of sprained ankles by the use of strips of adhesive plaster. Dr. Gibney owes his indebtedness for the new method to a little book by Mr. Edward Cotterell, of the University College Hospital London. It was not until the end of 1888 that the treatment advocated in brochure was fully digested and put into use by Dr. Gibney. He had all through his previous surgical career looked upon a sprain as a kind of mystery "not always so bad as a fracture but sometimes more tedious," requiring fomentations for a little while, then a fixed dressing of plaster of Paris or silicate of sodium, crutches perhaps, and rest and massage afterward. He had never been attracted toward these methods, and he had come to expect a "stiffish" joint in nearly every case that came under his charge. His first case to be tried according to Cotterell's plan was that of a lady who had wrenched her right ankle severly. The usual external features of a sprain were present; no dislocation or fracture could made be out. Dr. Gibney first cut strips of rubber adhesive plaster about half an inch in width and long enough to completely encircle the foot. Then, with the foot well raised, he strapped it (the ankle) and the lower third of the leg with these strips, very much as if he had had an ulcer to treat. The first strip was carried over the outer side of the foot from near the base of the little toe. The second strip crossed the first, the third lapped over the first, and the fourth overlapped the second, and so on until at the conclusion he had practically constructed a Scultetus bandage of adhesive strips extending far enough to include the lower third of the limb. Over this he placed a cheesecloth bandage to help the plaster strips to adhere to one another and to make the dressing more tidy. The patient was told to put on her stocking and shoe and to walk about the room. The walking was accomplished with some diffidence, but with no real difficulty. She was made to walk the next day and went out shopping without any bad results. The recovery was without relapse, and the usefulness of the ankle joint was unimpaired—*Kansas Med. Jour.*

DIAGNOSIS AND TREATMENT OF GASTRIC ULCER.—J. Boas, of Berlin, Germany (*Medical Record*), uses the usual means of arriving at a diagnosis establishes it by the presence of localized pain in the epigastrium and upon the examination of the stomach contents. Pain, however, may be rarely absent and the hyperacidity may be present in carcinoma when the growth is on the base of an old ulcer. He has found after many observations that a dorsal point of tenderness exists almost as frequently as the epigastric point, and the point is so sharply circumscribed that for diagnostic purposes it has far more value than the point in the epigastrium. The point is found to the left of and on a level with the tenth to the twelfth dorsal vertebra rarely higher or lower. It lies usually directly against the vertebra, rarely some distance from it. In a few instances the point is on both sides. In no other disease, and especially no other disease of the stomach, is the point found with equal constancy. In cases of cholelithiasis there is a painful spot to the right of the twelfth dorsal vertebra. He uses an instrument called the "Ægesimeter," by which the pressure made can

be measured. A painful point due to ulcer will not bear nearly as much pressure as one due to other causes. His treatment consists of rest in bed, limited diet and the administration of large doses of nitrate of silver in *solution*. He uses gr. iij to f℥iv of water at first and gradually increases the strength. The next bottle having gr. iiivss and the third vi. gr. to f℥iv. The dose is a tablespoonful diluted with a wineglassful of water and taken on an empty stomach. Some obstinate cases will not be relieved by this treatment. In these he gives no food by the mouth, but feeds by enemata. The yolk of two eggs, half a pint of milk, one tablespoonful of wine or brandy and a tablespoonful of flour are warmed and given every three hours. The return to solid food is gradual, liquids being first given.—*Univ. Med. Mag.*

Pneumonia.—Dr. H; C. Wood, in *Boston Medical and Surgical Journal*, says: There is pneumonias which are one thing, and there are pneumonias which, therapeutically, are another thing. Pneumonias therapeutically may have no more relation with one another than a pneumonia has with a dysentry, and are no more to be treated as the same disease, though we label them with the same name. When I speak to you about the treatment of pnemonias I do not mean the treatment of senile pnuemonias nor of asthenic pneumonias; I mean the treatment of frank, sthenic, hard pneumonia, that comes upon a man as with the bound of a lion. I say here that I am certain that when our forefathers bled these cases they saved lives that we now lose. I am out of date perhaps; I am behind the times in one way, and I am ahead of the times in another way. The pendulum is beginning to swing a little towards venesection; but the thought I want to leave with you is that by means of this drug (veratrum viride) we can get all the good that comes from venesection. You bleed a man, you depress him, lower the immediate activity of the vital forces, but you also take away power, and by and by, when the fight comes, that man is exhausted. Venesection has the dangers that surround tartar emetic. Remember that the abdominal vessels in a man will after death contain all the blood in his body and not be full. We forget very often that it is the abdominal vessels that dominate the circulation. Some of you must have seen in the operation of ovariotomy a woman dying, blanched upon the table, revived by a dash of hot water into the abdomen. The women revives out of her syncope because hot water contracts the abdominal vessels. When we give a man veratrum viride we dilate his abdominal vessels—we bleed the man into his own belly. By the action of this drug we get the influence of venesection; but instead of withdrawing the blood entirely from the body, we put it in a reservoir, whence we can pour it back when the proper time comes.—*Medical Brief.*

We are indebted to our friend, Dr. C. W. Tompkins, of Jasper, Fla., for the following poetic clipping from a late issue of the Jasper *News*. Dr. Tompkins has had it printed on the back of a number of his statements:

Once upon a midnight dreary,
The doctor slumbered weak and weary
And all the town could hear
Him snore.

While he lay there sweetly napping,
Suddenly there came a tapping
Like a ramgoat madly rapping
His hard head upon
The door.

"Get thee up" a voice said loudly,
"Come in haste," it added proudly,
Like a man who owned a million or
Much more.

But the doctor never heeded,
Back to dreamland fast he speeded,
For such men as that he needed
In his practice
Nevermore.

For long months that man had owed him,
Not a cent he'd ever paid him,
And the doctor now will dose him
Nevermore.

—*Atlanta Med. and Surg. Jour.*

The Action and Use of Diuretin.—Dr. Herrick's experience seems to warrant the following deductions:

1. Diuretine is a diuretic acting by direct stimulation of the renal epithelium, and best suited to cases in which there is a general dropsical effusion.

2. It is the best medicinal remedy for removing dropsical fluid due to valvular disease of the heart, after digitalis and pure cardiac tonics have failed.

3. It can be advantageously combined with digitalis and pure cardiac tonics.

4. It probably has a direct effect upon the heart as well as upon the kidneys, slowing and strengthening its action and improving its rhythm.

5. Diuretin has oftentimes a beneficial effect in other circulatory diseases with dropsy, as myocarditis, aneurism, and arterio-sclerosis. Its action is here more uncertain than in valvular disease.

6. In the dropsy of nephritis it can be used without danger of irritating the kidney, the effects in acute nephritis being more certain than in chronic nephritis. Where the renal ephithelium has undergone too extensive degeneration, the drug may fail to act.

7. In the dropsy of portal obstruction, and especially of cirrhosis of the liver, it usually fails to give good results.

8. It occasionally causes nausea, vomiting, diarrhœa, palpitation, headache, and slight fever rarely, skin eruptions follow its use.

9. The maximum daily amount that can be given with safety is 150 grains; the average daily

amount is 50 to 120 grains, given in divided doses. When combined, in heart cases, with cardiac tonics, smaller doses of diuretin can be employed.

10. It should be given in solution in water or milk, or pill or capsule, without acids, and by preference between meals.—*The Pacific Record.*

Dysmenorrhœa, Menorrhagia, and Leucorrhœa.—Goodell (*Practice*) recommends the performance of rapid dilatation of the uterine canal for dysmenorrhœa due to acute anteflexion and stenosis. If there has been menorrhagia, curetting is also done for the purpose of removing granulations from the endometrium. Always after curetting, the uterine cavity is irrigated with a 1.2000 bichloride of mercury solution through a double canula, and every loose particle washed away. A strip of iodoform gauze is then carried up to the fundus and packed into the canal, and a suppository of iodoform (grs. x-xx) placed in the vagina. Curetting and packing with iodoform gauze is also useful in cases of endometritis associated with copious leucorrhœa. Dr. Goodell has performed rapid dilatation about 400 times for dysmenorrhœa, in addition to the combination of this operation and curetting for other conditions, and has not yet seen any bad results from it. The presence of active inflammatory tubal or ovarian disease is a contra-indication of the operation.—*Univ. Med. Magazine.*

For the Removal of Warts.—For the removal of warts, Dr. R. B. Morrison, of Baltimore, Md., prescribes the following :

℞—Hydrarg. bichlor. . . . gr. v.
Acid. salicyl. . . . . ʒ j.
Collodion . . . . . ℥ j.

He sometimes increases the bichloride of mercury to thirty grains in the same quantity of collodion, if the milder application does not answer. It is applied every day once, the upper crust of the previous application being removed before a fresh one is made. Four such applications generally soften the wart to such a degree that gentle tratction removes it painlessly, the further dressing being any simple ointment.

A Case of Paraldehyde Habit.—This is reported by Dr. Frank Elkins. The patient, a man of 65, was admitted as a voluntary patient to the Royal Asylum, Edinburgh, on 23rd November, 1892. Two years before admission he commenced to use paraldehyde for the relief of insomnia, from which he had long suffered. A habit was soon established, and the dose of the medicine increased, until shortly before he entered the asylum he was taking sixteen ounces of paraldehyde a week. He had lost two stones in weight, and was so weak that he had to be fed like a child. The action of the heart was weak and irregular, the appetite abnormally large, and the patient suffered from hallucinations of sight and hearing, and from delusions of an unpleasant character. He proved himself a most troublesome patient, but was discharged in good health on 21st February. Marked improvement appeared to date from the administration of sulphonal.—*Ed. Med. Jour.*

Chloroform as a Hæmostatic.—As a general hæmostatic for controlling of external bleedings, arterial, venous, or capillary, chloroform is most valuable. Applied on a dossil of lint or cotton wool to the bleeding surface, it promptly stays the blood, acts as a direct stimulant to the patient, and leaves no blood crust to fall off and recommence the bleeding. It is peculiarly suitable for all abdominal operations, as it has no tendency to excite inflammation either in the part to which it is applied or to any of the surrounding tissues.

As an antiseptic application it is more powerfnl than bichloride of mercury solution. The addition of gum resins has been suggested, but they would detract from the value of the application instead of increasing it, for the reasons which will occur to any person familiar with the use of solutions of gum resins.—*Medical Press.*

Cardiac Asthma. — Dr. Ferrand, *Le Bulletin Medical*, recommends the following treatment :

General treatment.

1. Each morning two soup-spoonfuls of
℞ Iodide of sodium, grms. 25 (ʒ vj).
Infusion of elder flowers, grms. 300 (fl. ℥ x).

2. Every evening, before eating, two soup-spoonfuls of
℞ Bromide of sodium, grms. 25 (ʒ vj).
Syrup of aconite, grms. 50 (fl. ℥ viss).
Infusion of hops, grms. 250 (fl. ℥ viij).
—*Lancet Clinic.*

Atropine in Lead Colic. — Dr. F. Rowland Humphreys reports in *The Lancet*, a number of cases of lead poisoning treated successfully with sulphate of atropine and iodide of potassium. The author concludes that in lead poisoning atropine in full doses (1) relieves the colic and the pain in the head in the most rapid manner ; (2) it keeps the bowels freely open ; (3) it assists in the return of the bodily powers ; (4) it assists, directly or indirectly, in the removal of the lead by iodide of potassium.—*N. Y. Med. Rec.*

What Woman Can Do.—A Kentucky woman who concluded her medical studies this spring brought home in one arm a diploma and in the other her week old babe. Another woman, in Kansas, not long ago celebrated her election as town mayor by giving birth to a child on the same

day. Which either proves the superiority of women over man by way of versalility and endurance, or it may be accepted as a protest by nature against modern attempts to set insuperable barriers.—*N. Y. Med. Rec.*

THE CONTAGIOUSNESS OF PUERPERAL FEVERS.—From the classical article of Oliver Wendell Holmes, which was published in 1843 and which has just been republished, we take his eight conclusions, which will be most interesting to the younger brothers of the profession who may believe that antiseptic midwifery is something very new. "Honor to him to whom honor is due."

1. A physician holding himself in readiness to attend cases of midwifery should never take any active part in the *post-mortem* examination of cases of puerperal fever.

2. If a physician is present at such autopsies, he should use thorough ablution, change every article of dress, and allow twenty-four hours or more to elapse before attending to any case of midwifery. It may be well to extend the same caution to cases of simple peritonitis.

3. Similar precautions should be taken after the autopsy or surgical treatment of erysipelas, if the physician is obliged to unite such offices with his obstetrical duties, which is in the highest degree inexpedient.

4. On the occurrence of a single case of puerperal fever in his practice, the physician is bound to consider the next female he attends in labor, unless some weeks at least have elapsed, as in danger of being infected by him, and it is his duty to take every precaution to diminish her risk of disease and death.

5. If within a short period two cases of puerperal fever happen close to each other in the practice of the same physician, the disease not existing or prevailing in the neighborhood, he would do wisely to relinquish his obstetrical practice for at least one month, and endeavor to free himself by every available means from any noxious influence he may carry about with him.

6. The occurrence of three or more closely connected cases, in the practice of one individual, no others existing in the neighborhood, and no other sufficient cause being alleged for the coincidence, is *prima facie* evidence that he is the vehicle of contagion.

7. It is the duty of the physician to take every precaution that the disease shall not be introduced by nurses or other assistants, by making proper inquiries concerning them, and giving timely warning of every suspected source of danger.

8. Whatever indulgence may be granted to those who have heretofore been the ignorant causes of so much misery, the time has come when the existence of a *private pestilence* in the sphere of a single physician should be looked upon not as a misfortune, but a crime; and in the knowledge of such occurrences, the duties of the practitioner to his profession should give way to his paramount obligations to society.—*Annals of Gynecology and Pediatry.*

THE SAVAGERY OF FASHION.—Not a whit too early, but rather too late, has come the protest issued a few days ago by Mr. W. H. Hudson against the indiscriminate killing of birds for the sake of their plumage. Fashion of late has been forgetfully merciful in this matter. Birds for ladies' wear have not commanded a market, and perhaps a few struggling species owe their still recognisable existence to this cause. Unfortunately there are signs that the grateful period of oversight has expired, for again we hear of a coming "rage" for "wings." In other words, our mothers, wives, and daughters are being persuaded into a return to the old practices of self-decoration, which it appears were only for a time in abeyance. What these implied may be judged from the fact that many species of brightly feathered birds, according to present ornithological records, are already on the verge of extinction. Little wonder is it that this can be said when we reflect upon the heedless barbarity and wanton waste of life which commonly characterise the methods of the bird-killer, his unconcern either for close time or any other season, for the kind or number of his victims (if only he succeeds in making a living by them), and for any form of remonstrance which does not touch his pocket. The appeal to which we have referred was made to women, for whose adornment so many ruthless depredations have been made upon the treasuries of nature. Most of them who have any pretensions either to feeling or intelligence will, we are assured, admit the force of that appeal. It is, indeed, a monstrous thing that has evoked it. Forms of life inimitable in beauty as in adaptation, gems of nature's workmanship, antique, enduring, irrecoverable if lost, are to be wantonly destroyed—why? In order that a dress or a bonnet may for some pleasant hours attract a little social attention. A more Goth-like idea of refinement it would be difficult to find. The force of trade interest lately acquired for seals a right to protection. Even the same force, wherever it is instructed by science, and supported by the most rudimentary sense of humanity, demands a similar right for the feathered creation. It is sincerely to be hoped that the purchasing public and our legislators alike will early recognise this right, and will provide against any attempt to infringe it.—*Lancet.*

RHEUMATISM AND ARTERIO-SCLEROSIS. — Dr. Manteuffel discusses the relation of so-called rheu-

matism in the lower extremeties and vascular disease.. The pains complained of are situated in varying parts of the feet and legs, the feet are cold, and numbness may be experienced. The skin looks pale, and is often desquamating in minute scales. Sometimes patches of characteristic erythematous œdema may be seen with an increase in the symptoms above described. In these cases the pulse should be carefully examined. Differences may be present, and the arteries may be found degenerate. These manifestations are not to be confounded with articular affections, nor with sclerosis of the veins. No varices or pigmentation are present. Localized œdema is, of course, not to be mistaken for more general œdema due to venous obstruction. It may be difficult to distinguish this affection from neuralgia, and in cases of arterior-sclerosis the nerves may also be involved. For proof from morbid anatomy the author refers to cases of angio-sclerotic gangrene slowly developed and preceded by pains. He cites a case of gangrene in a girl, nineteen years of age, with diseased arteries, in which rheumatic pains had long preceded the gangrene. As to whether these rheumatic pains are a preliminary stage to gangrene cannot be denied with certainty in some cases. If the collateral circulation is sufficient, gangrene occurs, but this last stage is often not seen. The author warns against local massage in these cases of arterio-sclerotic rheumatism. Some patients whose disease is written of as rheumatism, or even hysteria, thus really suffer from arterio-sclerosis.—*N. Y. Med. Rec.*

MEDICINE AND SURGERY AMONG ANIMALS.—Animals get rid of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek dark and airy places, drink water, and sometimes plunge into it. When a dog has lost its appetite, it eats that species of grass known as dog's grass, which acts as an emetic, and purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. Animals suffering from chronic rheumatism always keeps, as far as possible, inthe sun.

The warrior ants have regularly organized ambulances. Latrielle cut the antennæ of the ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth.

A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days in running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook where its food was taken to it. This animal recovered. A terrier hurt its right eye. It remained under a counter, avoiding light and heat, although it habitually kept close to the fire. It adopted a general treatment, rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which it applied to the wounded eye, again licking the paw when it became dry.

Animals suffering from traumatic fever treat themselves by the continued application of cold, which M. Delaunay considers to be more certain than any of the other methods. In view of these interesting facts, we are, he thinks, forced to admit that hygiene and therapeutics, as practiced by animals, may, in the interest of psychology, be tudied with advantage.—*Farm Folks.*

THE TREATMENT OF INTESTINAL HÆMORRHAGE IN TYPHOID FEVER.—Dr. E. Maragliano, Professor of Clinical Medicine at the Medical Faculty of Genoa, maintains that the occurrence of intestinal hæmorrhage during an attack of typhoid fever is not such a grave complication as is generally believed. Not only has he never lost a single patient from the acute anemia due to the accident—a statement which will probably be received with surprise by many a practitioner—but he is even of opinion that the occurrence of hæmorrhage rather exerts a favorable influence on the subsequent progress of the disease. Indeed, the mortality among the cases under the Professor's care in which hæmorrhage took place, was on the whole lower than among those which did not show this complication. This Prof. Maragliano brings forward as an argument in favor of his contention that bleeding is never injurious in infectious diseases, in spite of what may be said to the contrary, a certain quantity of the specific virus being thus removed from the organism.

In respect of the alleged influence of cold baths in increasing the liability to enterorrhagia in typhoid fever, Prof. Maragliano has found from experience that intestinal hæmorrhage is of less frequent occurrence in cases of enteric fever which are treated by Brand's method than in others. Patients who suffer from hæmorrhage are usually those in whom the treatment has been commenced too late, as, for example, those who are taken to the hospital when the disease is already far advanced.

The following is the method of treatment recommended by Prof. Maragliano in cases of enterorrhagia in the course of an attack of typhoid fever: The physician should remain by the side of the patient until all signs of hæmorrhage have disappeared. An ice-bag is to be applied to the abdomen especially over the right iliac foesa which is the seat of the hæmorrhage. A hypodermic injection of one gramme (fifteen minims) of ergotine is at once to be made. From four to five

grammes (sixty to seventy-five minims) of ergotine should be injected in the course of a few hours, for smaller doses will not produce the desired effect.

In addition to the above, one of the following cachets is also to be administered every hour:

℞—Powdered Opium . . . . . gr. ij.
Subnitrate of Bismuth . . . ʒ iij.

Mix and divide into twelve cachets.

Should the exaggerated peristaltic action of the intestine and the hæmorrhage persist, the dose of opium is to be increased until twenty centigrammes (three grains) are taken in the twenty-four hours. Experience has shown that the action of full doses of opium is very well borne by typhoid patients.

Prof. Maragliano has succeeded in every case in arresting the hæmorrhage by these means and sometimes even more rapidly than was to be expected.—*N. Am. Prac.*

Placenta Prævia.—Tarnier, *Jour. des Sages Femmes*, demonstrated in May, a case which he held to be highly instructive. On May 10th, a sempstress, who had been delivered normally thirteen times, and was approaching term, sent for the midwife, as great œdema of the extremeties had set in. On the 14th hæmorrhage occurred, and recurred severely on the 15th. The midwife diagnosed placenta prævia, and immediately plugged the vagina with strips of the cotton dresses which lay about in the patient's room, dipping them first in sublimate. Tarnier declares that as time was pressing, she did right, though rupture of the membranes would have been best. The stuff employed was of course not absorbent cotton, and free flooding occurred in the night; the midwife plugged the vagina again, and the patient was sent into hospital. M'lle. Landais, the hospital midwife, found that there was no more bleeding, so left the case at rest. Strong pains occurred very soon, and about two hours after the application of the second tampon a single uterine contraction expelled "in half a minute" the tampon membranes, child, and placenta. The infant was dead, the mother little the worse for her dangerous labor. Tarnier notes that the hæmorrhage might have been attributed to the conditions which caused the œdema. There was no albuminuria. He does not, as is above explained, condemn the tampon in placenta prævia, there being no fear that the plug might change external into internal bleeding. Clots form behind the plug and tend to close the open vessel.—*Br. Med. Jour.*

A Case of Spontaneous Rupture of the Symphysis During Delivery.— Oehlschlager (*Centralblatt für Gynäkologie*), gives an interesting account of a twenty-years old I-para who came under his care suffering from eclampsia. Albumin was found in the urine, and some œdema was present. Patient had within one year shown symptoms of rhachitis. Forceps being applied to the head high in the pelvis, a somewhat strong traction was made. During the delivery the symphysis ruptured with a distinct sound, and immediately showed a separation of perhaps 3 cm. After this the delivery was easy, and a living child was extracted. The eclampsia did not return. A strong bandage of leather was put around the patient's hips. No fever appeared, and in three weeks she was discharged. When last seen the two ends of the symphysis were about 1 cm. apart, but this did not interfere with the movements of the woman. The author knows of no similar case, either in his own practice nor that of other physicians.—*Am. Jour. of Med. Science.*

The Use of Cocaine.—1. Amount of cocaine used must be in proportion to the extent of surface it is desired to anæsthetize. In no case should the quantity exceed one grain and three-quarters.

2. Cocaine should never be used in cases of heart disease, pulmonary disease, or in persons of highly nervous temperament.

3. In injecting cocaine, the intradermic method is preferable to hypodermic. By injecting into, not under mucous membrane or skin, the risk of entering a blood vessel is avoided.

4. During injection the patient should always be in a recumbent position; in operations upon the nose and throat, the head should not be raised until anæsthesia is complete.

5. It is of great importance that cocaine should be pure, since its combinations with certain other alkalies result in poisonous compounds.—*Brooklyn Med. Jour.*

Irritative Cough of Phthisis.—Dr. F. P. Henry, of Philadelphia, in the *Kansas City Medical Index*, indorses the following formula, which has been employed for many years at the Episcopal Hospital at Philadelphia:

℞—Potassii cyanid., . . . . gr. j.
Morphinæ acetat., . . . . gr. j.
Aceti sanguinariæ, . . . . ʒ ij.
Syr. tolut., . . . . . ℥ j.
Aquæ, q. s. ad. . . . . ℥ iij.—M.

Sig.—One teaspoonful every three hours.—*Med. Bulletin.*

To keep Leeches.—The bottom of the vase or jar containing them should be covered with small pebbles and a sprinkling of sand. If a few stones bearing vegetation can be obtained from the bottom of a stream or pool, these are very useful to put in the jar. The water should not be entirely changed; syphon off a little, and add more fresh water. Keep jar in a temperate place.—*Bul. of Pharmacy.*

## Correspondence.

### LODGE PRACTICE.

To the Editor of the Canada Lancet.

Dear Sir,—The question of "Lodge Practice" and the best means of doing away with it, has been prominently before the minds of the medical practitioners of Toronto for some time. A meeting was called, and the following gentlemen were present:—Drs. A. R. Macdonald, J. B. Moran, T. J. Moher, Geo. Acheson, J. A. Stevenson, and James Hird. Dr. Macdonald was elected chairman, and Dr. Acheson secretary.

After all had expressed themselves as thoroughly in sympathy with the proposed plan of getting rid of the evil of lodge practice, it was moved by Dr. Stevenson, seconded by Dr. Moher, and *unanimously* carried,

"That we, the undersigned physicians, residing and practising in the town of Trenton, Ont., do hereby pledge our honor not to enter into any contract with any society, club, lodge, company, or corporation, to give medical attendance, advice, or medicine, to the members thereof, for any stated period at a fixed rate per member, or for a lump sum per annum, or to do what is commonly known as 'lodge doctoring'; or to give our professional services to such on any other terms than to the general public: providing that this agreement does not affect existing contracts terminating at the end of the current year."

At a subsequent meeting Drs. J. T. McKenzie and H. H. Hawley were present, and agreed to the resolution; and on November 1st it was signed by the following medical men:—

A. R. Macdonald, A.B., M.D.
John A. Stevenson, M.D.
J. B. Moran, M.D.
J. T. McKenzie, M.D.
Thomas J. Moher, M.D.
Geo. Acheson, M.D., M.A.
H. H. Hawley, M.D., M.R.C.S.

It was also unanimously determined not to make examinations for life insurance in any company or fraternal benefit society for a fee of less than two dollars.

We trust that the profession as a whole, will unite in an endeavor to stamp out the pernicious contract system, and that our example here may stimulate others to assist in bringing about a much-needed reform.

I have been authorized as secretary to make this communication to your journal.

Yours respectfully,

Geo. Acheson.

Trenton, Ont., Nov. 21st, 1893

---

Ipecacuanha in Hæmatemesis.—Dr. Burland, writing in *The Lancet*, gives some cases in which severe and apparently hopeless hæmatemesis was checked by large deses of ipecac. He says:—I have selected these three cases on account of their exceptional severity. I would emphasise the necessity of keeping the patient motionless with the spine arched forwards by means of hard pillows placed beneath the dorsal column. Nothing whatever should be given by the mouth except the ipecacuanha; this should be fresh, and a few drops of tincture of opium ought to be added to sufficient glycerine to mould the mass into a bolus. Especial care should be taken that no fluid is given either by the mouth or the rectum for at least two hours after the administration of the drugs. The patient's strength should be supported by nutrient peptonised enemata, and stimulants should be taken in the same manner. Brandy given by the mouth is almost invariably rejected and keeps up the vomiting. I am persuaded that in ipecacuanha administered with the precautions I have named there exists a remedy of singular potency in the treatment of hæmatemesis.

A Case of Pneumonectomy, performed by Dr. Lawson, is reported in the *Brit. Med. Jour. Med. and Surg. Rep.* The operation was commenced by the removal of the interior third of the second and third ribs; the parietal layers of the pleura were opened, and after separating a number of extensive adhesions, the apex of the lung was pulled out. It was then transfixed with a needle and strong silk; firmly tied and removed. The pneumothorax which developed, gave very little trouble; the respirations being at first forty-four, but soon dropped down to twenty-four. The pulse also showed a similar course. The highest point reached by the temperature was 101.8. This occurred in the second week, and lasted five or six days, with complete morning remissions. By the end of the third week the wound had entirely healed.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address*, DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & CO., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, DECEMBER, 1893.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## TREATMENT OF CHRONIC ALCOHOLISM.

Drunkenness or inebriety has existed so long, and is so common that every layman knows the disease, though he does not recognize it as a disease, which it undoubtedly is; one of the *morbia habits*, among which may also be placed, opium inebriety, chloroformism, cocainism, chloralism, ether inebriety, arsenic inebriety, the antipyrin habit, cologne water habit, tea, and coffee inebriety, and not a few others.

The type of alcoholic inebriety has changed considerably in modern times. We can all remember the steady moderate drinker of the past, and all history and literature points to the fact that men drank, certainly much more commonly, and certainly very differently, from what they do now. In place of the old moderate drinker we are getting the impulsive maniacal drinker, who, after a longer or shorter preliminary stage, becomes an excessive user of spirits. It may be that for years, and, indeed, for the remainder of the patient's life, often not a short one, he has his regular *sprees*, which in time come with almost the regularity of the changes of the moon, or the seasons, though the tendency seems always to shorten the period of abstinence. As time goes on the *sprees* are recovered from more and more slowly, and recur more frequently, till, under the wear and tear of such a life, acute organic affections follow, complex brain and nerve-degenerations appear, for which medical treatment is now constantly demanded. Crothers says that, "A clinical study of the accurately grouped histories of a large number of cases brings ample confirmation of the fact that inebriety is a *disease* with a distinct and largely traceable causation, a uniform development and progress, a uniform symptomatology and termination."

Many other types of the disease are noted, but the one for which there is, perhaps, most hope, under medical treatment, is that class whose drink storms come on with, or date from, some state of nerve or brain exhaustion.

Such cases must be impressed (a very difficult matter, as they rarely see, until it is too late, the danger in which they stand), with the gravity of this *disease*, and the need of physical remedies, and, above all, of the absolute necessity of consulting their physician when the desire to drink comes on, rather than the recourse to the easier, and at the time, more pleasant means of overcoming the depression under which they are suffering, the taking of alcohol, which always ends in a break up.

The question of restraint in cases of inebriety, is a very serious one. Unfortunately, legislation in this matter is sadly inadequate. The consent of the sufferer is always necessary to this restraint. Now, recognizing the drink craze as a disease, how illogical to expect the sufferer to act with firmness and good judgment in his own case. As well might you expect the habitual thief to wish for his own detention, as the habitual drunkard to consent to his incarceration in the asylum for the cure of his disease.

The habitual drunkard is a pitiable case, and his own volition should be little attended to, and a certain amount of wholesome compulsion is absolutely demanded. The time is undoubtedly coming when the Government will have to recognize its responsibility in this matter, as they now do in cases of insanity, and undertake the care of a large class who are now allowed to harm themselves whenever they can get the necessary alcohol. One thing is certain. A few weeks at sanitariam and private asylums, are positively useless. The disease, if curable, is not curable in so short a time, nor without careful and skilful medical treatment. Months and years are necessary to elapse under treatment before the sufferer is able to take his place in the world again, able alone to cope with his weakness.

## NITRO-GLYCERIN IN EPILEPSY.

According to Eliot Bates, of New York, and others, the hypodermic use of nitro-glycerin is of great utility in relieving the paroxysms of epilepsy.

The beneficial results which follow the administration of nitro-glycerin in angina pectoris, such as the rapid relief of those headaches accompanied by small wiry pulse, pallor of the face and sudden faintness, and often the relief of a severe neuralgia, led to the question, can nitro-glycerin be utilized to relieve the arterial spasm of the epileptic attack, thereby to establish consciousness, relieve the convulsive movements, prevent the after exhaustion, and to prevent, as far as possible, the ill-effects of the anæmia of the brain?

The utility of this drug and nitrite of amyl has long been recognized at the beginning of an attack as soon as the least suspicion of aura arises, *i. e.*, to abort the attack—but its use after the attack has been established, when the sufferer lies with rigid limbs and unconscious, has not been advocated prior to Dr. Bates' paper upon the subject. He uses the hypodermic method of medication, and finds it most successful.

In the first case the patient had been afflicted for four years. At this time he lay as he had fallen, rigid, and totally unconscious, with violent muscular convulsions, and all the concomitant symptoms of an epileptic attack.

A hypodermic injection of one-hundreth of a grain of nitro-glycerin was given, and before the needle was withdrawn total relaxation took place, consciousness was restored, and the patient asked for a glass of water.

In the second case, seen four times, the method proved of great value, as the patient was a terror to all from his violence during the attacks. The use of the drug was followed by an immediate restoration of consciousness. The method has been pursued in twelve cases without a single failure. In all the cases the after-effects of the attack were markedly lessened, the patient recovered without the fatigue and general demoralization usual to epilepsy. It is not claimed by Bates that the method is curative. It does shorten the attack, saves fatigue, and he believes has some in lessening the frequency of the attacks.

The after treatment consists in the administration of the bromides in a bitter infusion, hops being preferred, and the use of minute doses of nitro-glycerin.

## THE INFLUENCE OF THYROID ON THE NUTRITION OF THE SKIN.

We have heard a great deal of late months, about the curative effects of thyroid feeding in that formerly incurable disease, myxœdema. There can be no doubt, from the accumulated evidence of scientific observers, that thyroid feeding does induce a very marked change in the nutrition of the skin, not only in myxœdema but also in sporadic cretinism. Byron Bramwell reports, *Br. Med. Jour.*, that in 11 cases of myxœdema, and 3 of sporadic cretinism, the effect of the treatment was always desquamation of the skin, particularly of the palms and soles, varying in amount according to the greater or lesser quantity of the gland taken by the patient. Influenced by this consideration, he determined to try the same remedy in psoriasis.

The results have been well marked, and very encouraging. Several cases were treated, sometimes by a quarter of a raw thyroid, finely minced and concealed in rice paper given daily, and sometimes by five drops of Brady & Martin's thyroid extract, also given daily. Only two cases were not entirely cured, one of them being complicated by frequently recurring attacks of epilepsy, for which the patient was taking, during the whole course of thyroid treatment, full doses of bromide of potassium, which was probably the cause of the failure. In the other case, though the lesion disappeared from time to time under the thyroid treatment, it more than once reappeared. Dr. Bramwell sees no reason to doubt that this plan of treatment will be of great value in various skin diseases, especially in exfoliative dermalitis.

## MEDICAL NOTES.

FOR GRANULAR EYELIDS, Dr. G. S. Ryerson, *Therap. Gazette*, recommends the following, applied at night, *Coll. and Clin. Rec.*:—

| | |
|---|---|
| ℞—Hydrargyri oxidi. flavi, . . | gr. iv. |
| Zinci oxid., . . . . . | gr. ij. |
| Thymol, . . . . . | ♏ ij. |
| Camphor., . . . . . | gr. ss. |
| Cocain, muriat., . . . . | gr. ij. |
| Vaseline, . . . . . | ℥ j.—M. |

Dr. Gilles de la Tourette claims that a diagnosis between hysterical EPILEPSY and that due to neo-

plasm can be made by the examination of the urine. He has found that there is an increase in the elimination of urea and phosphates during a convulsion due to a tumor, while the amounts excreted during an attack of hysterical epilepsy are diminished.

For General Pruritis, sodium bicarbonate in combination with lithium bicarbonate has been recommended for internal administration; and for Itching of the Genital Organs, compresses of diluted carbolic acid have been employed. For Pruritus Vulvæ, Dr. Mejsel, *Hospitals-Tidende*, in *Cinn. Lancet-Clinic*, advises the following :—

℞—Potassii bromid., . . . . gr. xxx.
Lupulin., . . . . . gr. xxx.
Hydrargyri chloridi mitis, . ʒ ijss.
Olei olivæ, . . . . . ʒ j.—M.

Sig.—For external use. Shake well before applying.

A soothing application in Eczema, *Med. and Surg. Reporter* :—

℞—Bismuthi oxid.,
—— subnitratis, . . . āā ʒ j.
Acidi oleici, . . . . . ℥ j.
Ceræ albæ, . . . . . ʒ ij.
Adipis lanæ, . . . . . ʒ x.—M.
Fiat unguentum.

The Medical Profession in Upper Canada, 1783–1850.—Dr. Canniff's book goes to press in January, 1894. We predict for it a great success. *The Week* says :—Perhaps no one in Canada is better fitted to tell the story of the medical profession of his own country than the talented author of that historical work, the "Settlement of Upper Canada," and of the competent professional treatise, "The Principles of Surgery." To love of country, thorough knowledge of her conditions and history, lengthened experience as a medical practitioner, wide and intimate acquaintance with prominent members of his profession, and ready access to records of other days, Dr. Canniff adds the enthusiasm of the student and the requisite literary qualifications. A moment's thought of the past brings up the historic figure of Dr. John Rolph, and the cherished memory of Dr. Christopher Widmer. How important and attractive such a work can be made, is suggested by a glance at the table of contents of the proposed volume, "The Medical Profession in Upper Canada—1782-1850." Here the work of pioneer medical men, the proceedings of early medical boards, numerous biographical sketches and records of events in our early history are foreshadowed, together with an appendix of appropriate historical documents. The profession and the public look forward with interest to the coming volume, and many prominent Canadians have already ordered early copies.

The Therapeutic Action of Sulphonal.—Kost *Archiv. f. exp. Path. und Pharm.*, reports nearly two hundred cases in which he employed sulphonal as a hypnotic. He prescribes it especially for combating nervous and febrile insomnia and that form accompanying certain physical disorders. The dose for a man is from two to three grammes, for a woman one gramme. Larger doses have given rise to serious after effects, such as vomiting, diarrhea, followed by obstinate constipation, heaviness of the head, paralysis, painful micturition and albuminuria. According to experiments instituted by Kost, these deleterious effects are to be attributed to alterations of the kidneys and they are the result only of large doses. He concludes with the following observations :

(1) The maximum dose for a man is from two to three grammes, for a woman one gramme; these doses ought not to be exceeded except to combat intense excitement.

(2) When one is obliged to continue the use of the drug for a prolonged period, intermissions of several days should be made from time to time.

(3) The drug should be suspended as soon as such symptoms as nausea, vomiting or gastric pain appear.

(4) Administered with these precautions, sulphonal is a harmless drug.

Night Air.—Before we can hope to fight consuption with any chance of success, says *Good Health*, we have to get rid of the night air superstition. Like the dread of cold water, raw fruit, etc., it is founded on mistrust of our instincts. It is probably the most prolific single cause of impaired health, even among the civilized nations of our enlightened age, though its absurdity rivals

the grossest delusions of witchcraft era. The subjection of holy reason to "hear-says" could hardly go further. "Beware of the night wind; be sure and close your windows after dark!" In other words, "Beware of God's free air; be sure and infect your lungs with the stagnant, azotized, and offensive atmosphere of your bedroom." In other words, "Beware of the rock spring, stick to sewage." Is night air injurious? Since the day of creation that air has been breathed with impunity by millions of different animals—tender, delicate creatures, some of them—fawns, lambs, and young birds. The moist night air of the tropical forests is breathed with impunity by our next relatives, the anthropoid apes—the same apes that soon perish with consumption in the close, though generally well-warmed atmosphere of our northern menageries. Thousands of soldiers, hunters and lumbermen, sleep every night in tents and open sheds, without the least injurious consequences. Men in the last stage of consumption have recovered by adopting a semi-savage mode of life, and camping outdoors in all but the stormiest nights. Is it the draught you fear or the contrast of temperature? Blacksmiths and railroad conductors seem to thrive under such influences.

Doctors' Fees in England.—English fees have lately been ventilated in the London High Court of Justice, *Med. Stand.* Dr. Keetley, Senior Surgeon of the West London Hospital, sued Prof. Banister Fletcher for $2,000 for attendance upon the latter's son, who was badly hurt in the terrible railway disaster at Burgos some time ago. Prof. Fletcher paid $500 into court, declaring that to be an adequate payment for the services rendered. Dr. Keetley testified that he thought $150 a day was a fair remuneration for his undivided attention, even for a day's work in London. He received $75 a day whenever he attended court for an insurance company with which he was connected professionally. Dr. Alfred Cooper testified that, in his opinion, the charges were moderate in the extreme. For himself he should charge $2,000 for a trip to Paris, and $150 or $200 a day while he remained there, For going to Burgos he should charge $5,000. For bringing a patient home from Burgos and taking care of him during a three days' journey, he should charge $2,500. For devoting his whole time to a patient in London, he should not consider $40 an hour an excessive charge. Other surgeons gave similar testimony, and finally the jury decided that Mr. Keetley was entitled to $1,750, a verdict that gave him a substantial victory.

[Good, say we. It is time the world was educated to understand that a first-class doctor should be worth as much per day as a first-class lawyer. —Ed.]

A New Method of Politzerizing.—Everyone who has tried it knows how difficult it is to get the patient, whom it is intended to "Politzerize," to swallow at the proper moment (*Med. Times and Hosp. Gaz.*). Under these circumstances, and as this plan of clearing the Eustachian tube is just now very much in vogue, our readers may be glad to know of a novel and vastly more simple way of attaining the object in view. In Politzer's method, as is well known, in order to prevent the air insufflated into the nose from escaping through the pharynx instead of passing into tympanic cavity, the patient is asked to sound certain vowels or to swallow a mouthful of water, because in uttering certain vowel sounds, and during the act of deglutition, the soft palate is applied to the posterior wall of the pharynx. The naso-pharyngeal cavity, however, is only partially occluded by these means, and that for a very short time. Dr. Roydan therefore suggests that the patient be directed to take a deep inspiration and then to blow out the air through a small aperture between his closed lips. So long as the patient blows the velum palati remains in contact with the posterior wall of the pharynx, and Politzerization can be performed without the slightest difficulty.

Medical Notes.—*Med. Summary:*

Glycerin has decided power in preventing fermentation in the stomach.

Dr. Hare says that hydrochloric acid is only indicated in dyspepsia where the digestion is very slow, preceded by fermentation.

Dr. Cauldwell has stated that one full dose of picrotoxine, 1-40 gr., at bedtime is sufficient to control the nightsweats of consumptives.

Dr. G. W. Durga, of Le Raysville, Pa., states in the *Medical Bulletin* that cimicifuga is of value in states of mental depression occurring in subjects of uterine disorder.

Dr. H. M. Waldron, of Fairfax, Va., says that ustilago maidis is a specific in old men who complain of a burning sensation after urinating, gtt. 10 to ℥4 of water, teaspoonful every two hours.

Incontinence of urine, when due to slight disorder of genito-urinary or nervous system, may be relieved by rhus aromatica, beginning with 5 to 10 drops and increasing to 15 or 20 four times daily.

The Advantages of a Physician Dispensing His Own Medicine.—This is a subject which has been discussed, Storrs, *Med. Age*, to a great extent, both pro and con, for a long time. The principal reasons which have been given in favor of every physician being his own druggist, may be mentioned as follows: 1. To make a physician more independent. 2. On account of the habit of substitution prevalent among certain druggists. 3. To make sure of exhibiting pure and fresh drugs. 4. To prevent refilling of prescriptions without the physician's knowledge. 5. To show his disapproval of the practice of counter prescribing and the selling of patent medicines. 6. To center the pecuniary profits upon the physician. 7. To assure cleanliness in the preparation of medicines. 8. To educate the doctors to practical pharmacy. 9. To inspire confidence in the patient. 10. To check the growing use of proprietary medicine by the profession.

Salicylic Acid as a Vermifuge.—Ozegowski, *Norwing Lekarski*, recommends the use of salicylic acid for the expulsion of tape-worms. On the day preceding the treatment the patient fasts and takes an ounce of castor oil in the evening. On the following morning another half ounce of oil is taken at seven o'clock. Beginning at eight o'clock one gramme of salicylic acid is taken every hour for four hours. If the tape-warm is not expelled within an hour after the fourth dose has been taken, another dose of castor oil is prescribed, when the parasite is generally discharged. Only one failure is reported in twenty cases in which this remedy was employed.

Thyroid Glands.—Owing to the interest that has lately been shown in the use of thyroid glands in the treatment of myoxœdema, etc., and to afford physicians an opportunity of determining the vaiue of this agent, Messrs. Armour & Co., of Chicago, offer to supply gratis a small quantity of "Desicated Thyroid Glands" to members of the profession, upon application, for experimental purposes. The facilities of this firm for preparing the article are certainly unequalled, and the opportunity seems to us one which is worthy of attention, and should be taken advantage of in the interests of medical science.

Ulcer of Stomach.—To combat the nausea and vomiting, *Wolff*, a pill containing extract of belladonna, gr. $\frac{1}{8}$, and silver nitrate, gr. $\frac{1}{2}$, may be used with advantage; the latter is said to exercise a curative influence on the ulcerated surface, and by being converted into an insoluble chloride, diminishes or neutralizes the hydrochloric acid present in the stomach.

Eczema of the Scrotum.—Chrysarobin beginning with two per cent. vaseline ointment, and increasing if possible to ten per cent., is preferred to pyrogallol by Veiel. The latter, however, is useful where infiltration of the skin gives way too slowly to tar preparations. When either of these drugs is used the surrounding skin should be protected with a zinc jelly.

For Urticaria of Children.—*L'Union Med.:*

℞.—Chloral hydrat.,
Camphoræ pulv.,
Acaciæ pulv., . . . . āā ʒ ij.
Triturate until liquefied, and add
Cerat simpl., . . . . . ʒ j.—M.
Sig.—Apply topically.

A Liniment for Excessive Sweating of the Hands.—The following formula is attributed to the *Jour. des Science Médicales de Lille:* Borax and salicylic acid, each, fifteen parts; boric acid, four parts; glycerine and alcohol, each, sixty parts. The hands are to be rubbed with the liniment three times a day.

Paralysis Agitans.—Dr. Sacaze (*La Sem. Med.*) reports the case of a man, thirty-eight years old, in which the administration of sodium borate in doses of from fifteen to forty-five grains, in three or four equal parts in the course of the day, was followed by the most striking improvement in the symptoms of paralysis agitans that had developed after a fall upon the shoulder.

Treatment of Angina Pectoris.—*N. Y. Med. Rec.* Inhalation of chloroform, or a few drops of nitrite of amyl; 1-100th grain of nitro-glycerine, internally; placing the feet in hot water, mustard to the precordial region; dry cups between the shoulders; hypodermic injections of morphine and atropine, administration of stimulants and anodynes.

Whooping-Cough.—Dr. Nageli asserts, *Dublin Jour. Med. Science*, that a paroxysm of pertussis may be aborted by drawing the lower jaw downwards and forwards; and that the course of the disease is favorably affected by suppressing the attacks. Spasmodic cough due to other causes may be similarly restrained.

Dr. Davis says if pus is found in the urine of a woman, *Coll. and Clin. Rec.*, the following treatment will be found very beneficial: The bladder should be douched with a solution of creoline of the strength of a drachm to a pint of warm water twice a day; and ten grains of salol or fifteen grains of boric acid should be given internally three times a day.

Iron in Anæmia.—Dr. Smart, *Br. Med. Jour.*, arranges iron preparation in the following order of effectiveness; (1) ferri sulphas; (2) ferri carbonas saccharatus; (3) ferri proto-chloridum; (4) (4) ferri phosphas; (5) ferri peroxidum hydratum; (6) mangani ferri peptonas; (7) bi-palatinoids, equivalent to Blaud's pills; (8) ferri citras.

For dandruff, *Med. Rev.*:

℞—Resorcine, . . . . . ʒ j.
Beta naphthol, . . . . . ℈ j.
Tinct. cinchon. comp., . . . ʒ iij.
Spts. myrciæ, q. s. . . . . ℥ vj.—M.
Sig.—Apply twice daily.

Calendar of Discovery of Instruments of Precision.—*Med. Rec.*, the stethoscope, in 1816, by Laennec; the clinical thermometer (perfected), in 1850; the ophthalmoscope, in 1851, by Helmholtz; the laryngoscope, in 1851, by Avery; the sphygmograph, in 1863, by Marey.

The results obtained from Bromidia have been excellent. It combines all advantages of other hypnotic preparations without their disadvantages. The fact that it produces no unpleasant sensation on awaking renders it specially valuable.—*Chicago Med. Stand.*

Gelsemium will often do more good, *Med. Summary*, in irritable bladder than any other remedy. It is especially adapted to those women of hysterical type troubled by irritability at the neck of the bladder, calling for constant urination.

"What a pretty dimple that boy has," said a lady visitor, as she patted the doctor's hopeful. To which the infant replied: "You think that is a pretty dimple? Well, you dess ought to see the one on my tummick."

Freckles can be removed, according to Hager, *Med. Summary*, by the application every other day of an ointment composed of white precipitate and subnitrate of bismuth, each ʒ j; glycerine ointment, ℥ ss.

Ready relief from lumbago, it is stated by Dr. Didama, may be obtained by the use of large dry cups along the ridge of the lower spinal muscles. The cups of a conical shape, similar to a urinary deposit glass, are preferable.

Many cases of nausea may be promptly relieved, *Med. Summary*, by a mixture of four drops of creasote in two ounces of lime-water. Dose, a teaspoonful every fifteen minutes.

Gall Stones.—*Times and Reg*:

℞ Ætheris . . . . ʒvi.
Ol. terebinth . . . ʒiv. M.
Sig. Gtt. x-xx. in capsul. ter die.

Every physician should have temperature charts. Drop a post card to T. A. Slocum & Co., 186 Adelaide St. W., and receive a supply gratis.

Nicolaief recommends, (*Pract.*) in grave cases of diabetes, 30 grains of salol three times a day.

The *Med. Rec.* recommends hot injections of tannin and boric acid for dysentery.

Colorado and New Mexico are believed by some to have the best climate for asthmatic patients.

It is stated that bicycle riding has proved curative in several cases of persistent sciatica.

## Books and Pamphlets.

A Manual of Medical Treatment or Clinical Therapeutics. By I. Burney Yeo, M.D., F. R.C.P., Professor of Therapeutics in King's College, London. In two 12mo. volumes, containing 1275 pages, with illustrations. Complete work, cloth, $5.50. Philadelphia: Lea Bros. & Co. 1893. Toronto: Carveth & Co.

A very excellent work. The author has the correct idea in approaching the subject from the side of the disease and not from the side of the drug or remedy, surely the more natural method. In his preface the author says (with more point than we can hope to do, so we give his words):

"It is clear that any, or every part, of the natural history of a disease may bear, directly or indirectly, on its treatment, but some parts far more than others; and it would be most unphilosophical and unedifying to discuss the therapeutics of a disease without, at the same time, considering the true nature of the phenomena we are endeavoring to control.

"It is by examining into the mode of *causation* of disease, by investigating the true nature of the morbid changes which underlie the *phenomena* of disease, and by an exact knowledge of the properties and mode of action of the agencies we introduce for the purpose of influencing favorably its course, that what are termed *rational indications* are arrived at.

"These *indications* are based on observed facts; they have no concern with dogmas of any kind. Dogmatic medicine, no matter by what name it is known, is a thing of the past. It is wholly inconsistent with scientific methods, and it would be an unjustifiable waste of time here to discuss it. It will continue to have an attraction for certain minds, and that attraction will be found to be quite independent of the ordinary processes of reasoning, or the ordinary laws of evidence."

We have had occasion to refer very frequently to the pages of Dr. Yeo's book in the preparation of some notes on Therapeutics, and can assure our readers that it is one of the best books for the practitioner we have yet seen. The latest and most rational methods of treatment are discussed, and considerable attention is paid to diet and regimen. The general practitioner cannot afford to be without a copy.

A System of Genito-Urinary Diseases, Syphilology and Dermatology, in three volumes. Edited by Prince A. Morrow, A.M., M.D., Clinical Professor of Genito-Urinary Diseases, former Lecturer on Dermatology in the University of the City of New York; Surgeon to Charity Hospital, etc. D. Appleton & Co.

The subjects named being so comprehensive in their grasp, it is not to be expected that any individual writer could be so fully informed as to warrant him in assuming to put forth for the medical public anything so pretentious as a treatise, claiming for itself so much of the exhaustive, that the reader may fairly look upon it as his ultimate resource. With this lofty end in view, the editor has associated with himself a number of contributors, each eminent in his specialty.

Vols. I. and II. are at hand and afford indication that the design has not been too ambitious for accomplishment. Apparently no stone has been left unturned to furnish all the practical knowledge of those subjects, that to-day's advanced science can supply.

To the busy man, a satisfying book of ready reference is a desideratum, and beyond these volumes he does not require exploration.

For the sake of brevity, much of bibliography is omitted, and in its stead pains are taken to trace disease in its anatomical and pathological relations to the foundation stones. For example, the dissertation on Cystic Calculus sets out with an accurate description and well executed plates of the structures involved in the various operations.

Both volumes are profusely and artistically illustrated, many of the illustrations being colored. This latter feature will be specially appreciated by readers of the volume on Syphilology.

Much attention and space are given, and rightly, to diagnosis and treatment. The treatise should be in every medical library, and will disappoint no purchaser.

A Practical Treatise on Diseases of the Skin, for the use of Students and Practitioners. Third edition, thoroughly revised and enlarged. By James Nevins Hyde, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, etc. Philadelphia: Lea Bros. & Co. 1893. Toronto: Carveth & Co.

The present edition of Dr. Hyde's work on Diseases of the Skin brings the subject up to the

latest date. Much good work has been done during the past few years in dermatology, both in Europe and America, and the author has freely availed himself of all that is given in the transactions of scientific bodies on both continents.

The new edition contains considerations on no less than 35 new diseases, and as the last edition was in '88, the rate of advancement in this department of medicine may be easily understood.

The chapter on Tuberculosis has been wholly re-written and considerably enlarged, furnishing an exposition of this important subject from the point of view of modern bacteriology and histology. The edition contains 5 plates and 22 woodcuts, entirely new and original, in addition to the plates appearing in former editions.

The work is too well known to need our commendation, and yet we take the opportunity to heartily commend it to student and practitioner, as a full, scientific and reasonable work on the subject of which it treats.

Hand Book of Massage. By Emil. Kleen, M.D., Ph.D., of Carlsbad, Bohemia. Translated from the Swedish by E. M. Hartwell, M.D., Ph.D. Philadelphia: P. Blakiston Son & Co. 1892. Toronto: Carveth & Co. $2.75, pp. 316.

This is the standard work on Massage and a translation will be very welcome to a large number of English readers who are interested in the subject. The book seems a fair one, not running into extravagant praise of massage as so many of the works of enthusiasts do.

Leonard's Physician's Pocket Day-Book. Bound in red Morocco, with flap, pocket and pencil loop. Price, post-paid, $1. Published annually by the Illustrated Medical Journal Co., Detroit, Mich.

This popular day-book is now in its 16th year of publication. It is good for *thirteen* months from the first of *any* month that it may be begun, and accommodates charges for fifty patients daily for that time, besides having cash department, and complete obstetric records.

Chemistry and Physics; a Manual for Students and Practitioners. By Struthers, Ward and Willworth. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co. 1893.

This is one of the Students' Quiz Series, edited by B. B. Gallaudet, M.D., New York. It has all the merits of such books, as well as their de-merits. It is a ready-made note book, useful in the lecture room and study.

The Medical News Visiting List for 1894, for 30 patients a week. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co.

The old and well-known list, contains much valuable information, of which we may note: Methods of examining urine, Important incompatibilities, table of Eruptive fevers, Poisons and antidotes.

Puberty and the Change of Life. By J. C. Webster, M.D., M.R.C.P.E., assistant Professor of midwifery and diseases of women, University of Edinburgh. Edinburgh: E. & S. Livingston.

A useful text book, explaining to women the changes which take place at the periods of puberty and "change of life."

The Operative Treatment of Enlargement of the Prostate. By C. W. Mansell Moullin. London: John Ball & Son. 1892.

Three lectures delivered at the Royal College of Surgeons, based upon the records of upwards of 140 cases.

The Hygiene of the Ear. By Dr. V. Cozzolino, Professor in the Royal University of Naples. Translated from the 5th Italian edition by James Erskine, M.A., M.B., Glasgow. London: Baliere, Tyndall & Cox. 1892.

A Manual for Boards of Health and Health Officers. By Lewis Balch, M.D., Ph.D., Secretary State Board of Health of New York; Health Officer of Albany; Emeritus Professor of Anatomy and Professor of Medical Jurisprudence, Albany Medical College. Banks & Bros., New York.

The Ideal Physician's Visiting List (Lindsay & Blakiston's), 1894. P. Blakiston, Son & Co., 1012 Walnut Street, Philadelphia.

This work is now in the 43rd year of its publication. It contains much valuable and useful information.

---

A rectal aliment, consisting of two eggs, six ounces of water, twenty grains of pepsin, and ten grains of salt, is advised in the Detroit Emergency Hospital Report. It is thoroughly agitated and warmed before introduction.

THE CANADA LANCET

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

### DIPHTHERIA, ITS CAUSE AND TREATMENT.*

BY BEVERLEY Z. MILNER, M.D., C.M., TORONTO.

*Mr. President and Gentlemen,*—A very true definition of diphtheria is that given by Dr. J. C. Cameron, of Montreal, in his article on diphtheria. A local specific disease due to presence and action of bacilli, characterized by a deposit of pseudo-membrane at the site of infection, accompanied by constitutional disturbances and followed by nervous symptoms due to the absorption into the circulation of a virulent chemical agent (tox. albumen), which is produced by the local development of the bacilli.

It is often a very difficult matter to tell how the patient contracted the disease. It cannot always be said to be due to foul water, bad drainage, or defective plumbing. I have found it in the majority of cases to be due to contagion, direct or indirect. When called to see a case of diphtheria and find the premises in excellent condition, the plumbing and drainage standing the tests perfectly, we must look elsewhere for the cause. In one instance where the sanitation was perfect, I traced the cause to the presence of a young girl visiting the family, who had been an inmate of the diphtheria hospital, having been discharged from that institution for over three weeks previous to her visit. The disease spread all through that household, infecting six children and the father and mother. In another instance, after searching in vain for a cause, I learned that the milkman who supplied the family with milk, had just buried one child, a victim of diphtheria, and had another ill with the same disease. This milkman kept his cows on his premises, and I believe the milk was the medium of infection, for I had two other cases at the same time in different localities, where the same man supplied the milk, there being no other apparent cause. It seems quite reasonable to suppose that there are many cases due to the carelessness or ignorance of those who have the disease in their homes, who travel in the street-cars and frequent public places. A physician tells me of a case where a man, whose child died of diphtheria on a Sunday morning, had on that same morning attended church, remained to the after service, and would have gone to the Sunday school and perhaps evening service, had he not been requested to stay away. In many cases, children from infected homes attend school too soon after the patient's recovery. Indeed, a child suffering from the disease may attend school several days before detection, not complaining until he could no longer keep up. I have traced several cases to these sources of infection.

How can these existing evils be remedied? There exists a great deal of doubt as to the length of time a patient should be isolated after entire disappearance of the membrane. One authority says at least eight days, and this seems short enough when we know of cases being contracted from convalescents after that length of time.

Again, I believe the clothing of a patient often to be the means of carrying infection, through not being properly disinfected, on account of fear of destroying the fabric. It is a question whether the closing of schools during an epidemic of diphtheria limits the spread of the disease. It seems to me that a much better method would be to have the children examined carefully every morning by physicians, while the epidemic lasts. Children from infected homes should be prohibited from playing on the streets, and if sent away from home, as is often the case, should be thoroughly disinfected before being allowed to go. It is, comparatively, an easy matter to have the houses of the rich thoroughly disinfected, but not so in the case of the poor, who, in many instances, have large families and are not very cleanly. The houses of this latter class should be vacated while the process of disinfection is being carried on by the authorities. The burning of sulphur has been proved to be very inadequate, especially without the aid of steam. All fomites

* Read before the Ontario Med. Association, June, 1893.

that cannot be boiled in a bichloride solution should be destroyed, and as the poor cannot afford this loss, they should be recompensed by the municipal authorities. Until this is done, we may expect to have this dread disease constantly in our midst.

From the scientific researches of Klebs, Loffler, Welsh and others, we learn that diphtheria is a disease which is local in character before it becomes constitutional. This being the case, the earlier and more vigorously we commence local treatment, the greater the chance of success. In making the diagnosis, it is of great importance that we should distinguish the form of pseudo-membrane. There are two forms : — 1. That which lies upon, but does not to any extent involve the mucous membrane. 2. That which does involve the mucous membrane, causing its destruction. The membrane may spread with equal rapidity in either case, but in the latter the danger of absorption of toxic albumen into the deeper structures, possibly resulting in necrosis, is far greater. Our diagnosis made, we at once isolate the patient, selecting a room at the top of the house, one that is as large and as easily ventilated as possible, devoid of carpet, rugs, curtains, flowers and all ornaments, in fact everything but the bed, a wooden chair and a small table. Over the door, on the outside, hang a sheet which is saturated, and kept so, with a solution of carbolic acid (1 in 40), or bichloride (1 in 1000), the sheet completely covering the doorway. The attendant should, if possible, live in the room with the patient, or better still, in an adjoining room similarly treated, and should see that the excretions are disinfected by a bichloride solution and removed from the room under cover ; that all soiled clothes are burned, and that those utensils used in feeding the patient are not allowed to leave the room and mix with other dishes in the house. Milk or food of any kind should not be left uncovered in the room. Some physicians order saucers containing chloride of lime to be placed about the room, or carbolic acid to be sprinkled about to disinfect the air, but this is now considered of little or no use whatever. The best method, and a very simple one, of disinfecting the air, is by means of a vaporizing solution of carbolic acid and turpentine in water heated over a coal-oil stove. The air in the room should be frequently changed, and finally, the physician in attendance should provide himself with a long linen coat that he may put on when entering the sick room, leaving it behind for his next visit.

*Local treatment.* — It has been my habit to order turpentine to be applied, externally, to the throat, first coating the skin with goose oil in order to prevent blistering, believing it in a measure, if not entirely, prevents inflammatory swelling, and should be repeated as frequently as possible without breaking the skin, in the intervening time applying warm flannels saturated with oil. Turpentine relieves the congestion of underlying structures by driving the blood to the surface. Some authorities recommend the application of ice. This may be well enough with adult patients, but children will not tolerate it. Many solvents of the membrane have been tried and met with varying success, the most noteworthy being lactic acid and lime water, trypsin, pepsin, papayotin, and peroxide of hydrogen, the peroxide at the present time being the most reliable. It should be fresh and kept in a cool place, the bottle being tightly corked. Stale and poorly kept preparations will not froth up when used and are useless. The atomizer should have a long, stout, hard rubber stem with a flat or rounded tip, such as the Barclay Atomizer No. 21, or Ellis and Golterman's No. 102. Those with slender stems are liable to break, which happened once in a case of mine, the patient's tongue being injured ; while a short stem does not reach back far enough in the throat, and in children who resist treatment, the point presses on the tongue rendering the atomizer useless. The throat should be sprayed with peroxide every hour the first forty-eight hours, and then every two or three hours, according to the severity of the case, until the membrane has ceased to form ; also with a solution of tincture of irom and bichloride of mercury (1 in 2000), in equal parts, three or four times a day, the iron by its astringency causing hardening of the tissues by coagulating their albumen, thereby lessening the danger of absorption of toxic albumen.

When the patient is under three years of age, I dilute the peroxide. If the membrane, by its rapid growth, causes dyspnœa by filling up the throat, it should be removed. This should be accomplished, if possible, by a soft roll of absorb-

ent cotton around the end of a long pair of dressing forceps, gently wiping off the membrane. If this method does not succeed, it must be done with the forceps, the denuded surface being sprayed with the tincture of iron and bichloride mixture. The removal of membrane should be practised only in those cases where, by its rapid growth, it seriously interferes with respiration, or where a portion of membrane is detached, causing a flapping with inspiration or expiration, the greatest of care being necessary in order to avoid small portions of the membrane getting into the larynx, infecting that part also.

In Germany, Reunert claims to have had great success from the early removal of the membrane, and the application of the following solution :—

℞—Hydrarg. bichlor., . . . 1 part.
Acid tartaric, . . . . . 5 parts.
Water, . . . . . 1000 parts.

He repeats the operation every six hours, in stubborn cases, less frequently in milder ones. This may be comparatively an easy matter if the patient be an adult, but if a child, the opposite is the case, and is attended with some danger, as healthy parts of the pharynx and possibly the larynx, may be affected by transplanting the bacilli to these parts.

At the International Congress of Hygiene in London, in August, 1891, Mr. Turner reported success from the use of paraffin. He removes the membrane and applies paraffin to the denuded surface every hour. He says the throat gets well, usually, in one or two days.

By our constitutional treatment, the great aim is to counteract the poisonous and debilitating influences which the disease exerts. To accomplish this we resort to the free administration of tincture of iron, which has been rightly called our sheet anchor in the treatment of diphtheria. It should be given in moderately large and frequently administered doses, and largely diluted with water to prevent irritation of the stomach, and combined with chlorate of potash and bichloride of mercury. Iron has a decided influence over the nervous system through its tonic action to the muscular structures of the heart. Its action in increasing the red blood corpuscles is too well known for any comment. The chlorate of potash should be discontinued after forty-eight hours, on account of its injurious action on the kidneys if pushed too far. For a child five years of age, I prescribe as follows :—

℞—Tr. ferri mur., . . . . . ℥ iv.
Pot. chlor., . . . . . ℥ j.
Hydrarg. bichlor., . . . . gr. ¼.
Glycerine, . . . . . ℥ vj.
Aqua dest. ad., . . . . . ℥ iij.—M.

Sig.—℥ j. in plenty of water every two hours. When this mixture is taken I give the same, minus the potash. If the temperature is high, phenacetine or salol may be given, quinine having a tendency to cause vomiting. The patient's physical condition should be very closely watched, unfavorable symptoms being treated as they ap pear and the occasion requires. Stimulants should be administered from the very beginning, owing to the great liability to heart failure, the quantity given being governed by the action of the pulse. The nourishment should be of the most nutritious kind, solid food being avoided, except in mild cases, until the disappearance of the membrane. Milk is the chief article of diet and should be iced. It may be given alone, or with eggs beaten up in it. Beef tea and chicken broth may be given to relieve the monotony of the milk diet. Other useful adjuncts are: rice (well boiled, custards, sago and tapioca puddings, and plain ice-cream. It is absolutely essential that the patient be well nourished, consequently it is of great importance that the physician should see that the prescribed quantity is being taken, and that the stomach is doing its work. If the stomach becomes irritable, rejecting the food, we must peptonize the food, and if the stomach still refuses to do its work, feeding by enemata must be resorted to.

In laryngeal diphtheria our local treatment is limited to inhalation of steam, plain or medicated, turpentine and oil of eucalyptus being the best agents. There are many ways of accomplishing this, but the best, in the case of children, is to make a tent-like covering for the bed by extending the bedposts upwards and covering with sheets, leaving an opening about two feet wide at the head of the bed, the steam being introduced at the foot by means of a long tube from the generator (which any tinsmith can make), by fitting a pipe to the lid of a kettle or pail.

Much has been said about tracheotomy and intubation, as to which is preferable in some

cases, and when it should be resorted to. Stern is authority for the following rules by which we may be guided :—

1. It is better to intubate when the patient is under three and a-half years of age.

2. Between the ages of three and a-half and five years, tracheotomy has the preference, being of course guided by individual circumstances.

3. Over five years of age, always tracheotomy.

4. In adults, never tracheotomize, but try intubation.

5. When the trachea is crowded with membrane, intubation should never be performed.

Statistics show very little to choose from, intubation giving 26⅔ per cent. of recoveries, tracheotomy giving 26½ per cent.

Of the many remedies that have been recommended as solvents of the membrane, I believe the peroxide of hydrogen to be the most serviceable. I have every reason to have confidence in it, having since November, 1891, when I used it for the first time, treated 53 cases of diphtheria, with the loss of only one patient.

Before concluding, I would like to quote two or three rather interesting cases.

CASE I.—Lizzie W., æt. 16. When I first saw her she was suffering greatly from dyspnœa, owing to the great extent of the membrane, which literally filled the throat and mouth and nose, extending forward to the teeth, and giving the roof of the mouth the appearance of being coated with a thick layer of gelatin, the mucous membrane, tonsils and uvula being entirely hidden from view. Throat very much swollen. Pulse 120 and weak. Temperature 101. I immediately removed the membrane by means of a teaspoon, the forceps with absorbent cotton being of no use whatever, so thick was the membrane. This done, I sprayed with a solution of bichloride of mercury and iron. The patient was now able to breathe freely, showing the larynx to be free from membrane. This was done at noon time, and when I again visited her at 6 p.m., I was astonished to find the condition almost as bad as at first. I again removed the membrane, giving the same relief to the patient, and on inquiry I found they were late in getting the peroxide and had only used it once on account of the froth nearly choking the patient. I instructed them in the use of the atomizer and left, returning again about midnight, finding marked improvement, it being necessary to remove the membrane only twice more, the throat and nose being entirely clean in eight days. General paralysis now followed, the part affected first being the first to get well, lasting in all about ten days. I now thought the patient free from further trouble, when she suddenly became deaf, which lasted about three days, being closely followed by dimness of vision, resulting in total blindness, from which she recovered in about forty-eight hours.

CASE II.—Was almost identical with the one just mentioned; the membrane had to be removed in the same manner. The patient, a girl of 18, was menstruating at the time, causing her great pain and a high temperature. The after effects were the same as in the other case, but her recovery was not nearly as satisfactory, the patient suffering for months afterwards from dysmenorrhœa.

CASE III.—The interesting feature in this case was œdema of the uvula, resulting in entire sloughing.

CASE IV.—C. M., a boy æt. 8, had a bad attack of diphtheria in November, 1891. In March, 1892, the mother brought the boy to my office, saying that he had been vomiting in the mornings after eating his breakfast, for some time past. First noticed this about three or four weeks after his recovery from diphtheria, but had not thought it serious until the time of consultation, as it had only occurred occasionally. I prescribed a stimulating tonic and the patient appeared to improve for a few days, when he again commenced vomiting his breakfast, but during the remainder of the day was as well as in perfect health. This condition continued, though not so marked at times, until May 31st, when, while at play with other boys, he was suddenly seized with paralysis. I was sent for and found the patient in a comatose state, suffering from hemiplegia affecting the left side of the face and the right arm and leg. The usual treatment was adopted, and the patient recovered consciousness in a few hours, when I discovered that he had aphasia. I now shaved the head over the region of Broca's convolution and applied ice. Three or four days after he was able to flex the leg, and in a day or two more was able to say "Yes," "No," and two or three other words. I now tried faradism and he seemed

to improve rapidly, though the arm remained partially helpless. In July he was removed to a summer resort on the upper lakes and improved nicely until the 23rd of that month, when he complained of feeling ill and was immediately brought home. I saw him that same evening and found him, as I thought from his appearance, much better than when he went away, but he complained of feeling sick when sitting up and wanted to lie down, also complaining of feeling tired and sleepy all the time. This condition grew gradually worse until August 8th, on which day he died, convulsions setting in a few hours before death. Dr. Atherton twice saw the case in consultation and suspected a cerebral tumor, but as we were not permitted to hold an autopsy, our diagnosis must remain in doubt.

## CEREBELLAR HEREDO-ATAXIA.

BY DOCTOR PIERRE MARIE.

Translated from the French by D. Campbell Meyers, M.D., Toronto.

You know the name of hereditary ataxia is that under which Friedreich described for the first time the disease which, very justly, now bears his name. Although the first observations of this author date from 1861, the affection to which they refer has been really considered a morbid entity only during the past ten years. Since then the name of Friedreich's disease has been generally adopted and the term hereditary ataxia has been as a consequence but little used. It may at least serve as a generic denomination, applicable to a collection of clinical facts constituting a separate group, which will differ more or less from those which belong to Friedreich's disease, which have with these latter in regard to the symptoms, two common characters —identical disturbances of motion, and hereditary origin. It is on this account alone and without any intention of uniting them actually more than is necessary with Friedreich's disease, that I will designate by the name hereditary ataxia or heredo-ataxia, facts which I will discuss in the course of this lecture. When we treat of the anatomico-pathological study of this affection, you will understand why I add to this name the epithet "cerebellar."

But before going further I must, in order to have you better understand the difference which exists between the cases of typical Friedreich's disease and those which belong to heredo-ataxia, recall to you in a few words the principal characters which are generally accepted as belonging to the first of these affections. The motor disturbances of typical Friedreich's disease consist in very marked disorders of the gait and of standing, presenting much rather the appearance of titubation than ataxia so-called; Romberg's sign does not exist, or at least rarely. One frequently observes on movement, oscillations of the limbs, or even of the head on the trunk, quite analogous to the intention tremor of disseminated sclerosis; the movements present as well a choreic character. Sensory disturbances are very common in this affection; lightning pains are very rare; anæsthesia or analgesia are not seen, or are but little marked. As for the reflexes, one notices the preservation of those of the skin, at least in general; and the absence of patellar reflexes. In regard to the eye, the most frequent and the most important phenomenon is nystagmus, especially marked on fixation or on lateral deviation. In the greater number of cases, the absence of diplopia or of any ocular paralysis is noted. The visual functions of the optic nerve are thought to be unaffected. The reactions of the pupil, both for light and accomodation, are normal. There is nothing to note in regard to the special senses of taste, hearing or smell. Vertigo exists quite frequently; sometimes even a permanently vertiginous condition exists. The intelligence is not altered, although at times it may be only indifferently developed. The speech is, in cases of medium intensity, notably modified. It is slow and at the same time uncertain, scanning and explosive. There is no trouble in the genito-urinary functions, except a certain delay in the advent of puberty. Trophic cutaneous troubles do not exist, but one often notices some special osseous deformities, consisting on the one hand in a sort of talipes equinus, with thickening in the antero-posterior axis of the foot, and flexor contraction of the toes, especially marked in the great toe; on the other hand, of scoliosis of the vertebral column, sometimes quite marked. Sometimes an atrophy of certain muscle groups is seen. The course of the disease is progressive. One of the first phenomena is constituted by the retraction of the great toe or by the disappearance

of the patellar reflexes. Friedreich's disease is a family malady, that is to say, attacking several members of the same family, especially of the same generation. In a great number of cases, the date of the appearance of the disease is before the age of fourteen.

Such is the clinical aspect, considered as classical, in typical Friedreich's disease. Certainly there exists at times some variations, but they are unimportant and do not alter appreciably its ordinary physiognomy. On the contrary, in another category of cases, one notices alongside of the common symptoms (hereditary origin, troubles of speech, of movements, etc.) a whole series of abnormal phenomena, of which some are very important, and which oppose their classification with typical Friedreich's disease. It is of these abnormal cases that I wish to speak to you to-day. Let us first enumerate some of these cases :—

The first in date is that of Fraser ; then come those of Nonne, Sanger. Brown, Klippel and Durante. I will have in the course of this lecture an opportunity of mentioning to you several other cases more or less analogous to these ; but one cannot, without some reserve, place them in the same series.

We will now examine together the common characters which permit of a separate arrangement in the same group of these different cases. In continuing, I will point out at the proper time, in what the character of these cases differ from those which properly belong to typical Friedreich's disease.

In regard to etiology one finds in all the cases clearly marked the familial character of this disease; thus in the family observed by Sanger Brown, there were not less than twenty-three persons attacked. Relative to the familial character, it is necessary to remark that here one easily follows in certain cases (Sanger Brown, Klippel, Monne and Durante), the hereditary influence in the ascending line. For example, in the case of Sanger Brown, the great grandfather presented the symptoms of the malady which we are studying. His daughter, his grand-daughter, and the children of this latter were also attacked. In typical Friedreich's disease, on the contrary, it is rare to find this disease among the antecedents. It is met with most frequently in several children of the same generation. There is in this nothing absolute, and besides, perhaps, it is necessary to seek the reason of this slight difference in the fact, as we shall presently see that typical Friedreich's disease begins generally in infancy or at puberty. The subjects attacked marry rarely, and consequently have few descendants. Individuals attacked by cerebellar hereditary ataxia on the contrary usually present the first symptoms only between twenty and thirty-three years of age ; hence their greater aptitude to marriage and procreation.

After the facts related by Sanger Brown, it would seem that women are more frequently attacked than men ; in fact, of thirty-three boys composing a family, twelve were sufferers, whilst of the nineteen girls eleven were attacked.

It is not very rare to see hereditary cerebellar hereditary ataxia skip one or even two generations; and in this manner a grandfather may have a healthy son, having himself a healthy daughter, several of whose children may be attacked whilst the others of her family may remain healthy.

The affection seems to have a tendency to be propagated especially by females ; in the family of Sanger Brown the disease was transmitted through the father three times, whilst the mother transmitted it nine times.

It seems that in the families attacked by this affection, the tendencies to nervous diseases is especially pronounced. Notably in the family observed by Nonne, these (nervous diseases) were numerous and diverse among the members who were free from hereditary ataxia.

As to the age at which this affection supervenes, a noteworthy fact is, that if some individuals are attacked by it in infancy, the greater number develop it only at a later period ; after the twentieth year very often, even (Sanger Brown, Klippel and Durante), after the thirtieth year, and in two cases (Sanger Brown) at a still more advanced age—forty-five years of age.

In typical Friedreich's disease it begins generally at a much earlier age, showing itself most frequently in childhood—very rarely after seventeen. The following shows, speaking generally, how in the majority of cases cerebeller heredo-ataxia begins with the symptoms accompanying it according to the course which it develops :

The primary symptoms appear slowly and progressively as a more or less marked uncertainty

of the legs on standing or walking; sometimes one notices, however, as the first phenomenon, some lightning pains in the legs or in the loins. After a variable time which is ordinarily from one to three years, the uncertainty of movement attacks the hands also (uncertainty of movements of the upper extremities has been observed in the beginning by Sanger Brown, but it is quite exceptional). Almost at the same time arise troubles of speech, and of the sight. Another phenomenon to notice is that which consists in the preservation and also in the exaggeration of the patellar reflexes; sometimes there also exists other spasmodic phenomena. In some cases only disturbance of the cutaneous sensibility has been observed. Sometimes one notices a certain mental weakness. In regard to the troubles of deglutition or of the genito-urinary sphincters, if they are seen in certain cases they are exceptional. The disease is essentially progressive but may present remissions; it does not cause death. This supervenes through some intercurrent disease, even in advanced age; this terminal intercurrent disease attacks the lungs especially.

Such are, as a whole, the aspect and course of this affection; it now remains for us to separately consider each symptom which I have just enumerated and to study the principal variations in them.

In regard to the troubles of motion of the lower extremities, it is not necessary to enlarge upon them, for they are entirely analogous to those observed in typical Friedreich's disease. We find the same uncertain gait arising from a lack of knowledge of equilibrium rather than from muscular inco-ordination. The legs are separated, the step irregular, the feet fall heavily on the floor without contradictory and useless excursion of movement which gives to the walk of ataxics its special characteristic. The body is thrown backward, the loins are arched, and the patient "walks from the pelvis." In the beginning they are able to move without great difficulty, but little by little the difficulties increase and they are obliged to claim the assistance of a cane. A little later this suffices no longer, it is necessary to support them under the arms, or, when by themselves, they are obliged, in order to make a few steps, to lean against the wall or on the furniture in the room in which they happen to be. The erect posture is in certain cases very difficult; one then sees the patient leaning against the wall, the body inclined forward, balancing itself lightly from one side to the other, the head carried backward, oscillating as if being too heavy for the neck, the patient had some difficulty in maintaining it in equilibrium. It is in order to counterbalance the inclination of the trunk forwards that the head is carried backwards in this manner.

We must remark that in this description it is a question only of the cases in which the symptoms are very marked; in the beginning it is not the same. These troubles in the motion of the lower extremity are seen but little except after great fatigue, or after a long walk. Sometimes in the early stage the uncertainty of walk does not attract the attention of the patient himself whilst it is remarked by those about him, and the cases are not very rare in which this initial titubation has been taken for inebriety. If one seeks in these cases what is the influence on equilibrium, of closure of the eyes one notices that in general it is but little changed. In a word there is not or scarcely any Romberg's sign contrary to what is seen in tabes. This absence of Romberg's sign is besides, usual in Friedreich's disease. In some cases patients complain of giddy sensations which contribute to exaggerate the difficulty of the walk and of the erect posture. As to the upper extremities their motion is infinitely less disturbed than that of the lower exremities, and only at a late stage. In this the former motor trouble consists especially, as in typical Friedreich's disease, in somewhat of a pseudo-tremor, occurring especially on intentional movements. At first only the most delicate acts are altered, such as, for example, that of writing, or picking up a pen, or buttoning a coat; when the disease is further advanced, other movements may be much disordered and the patients are able to feed themselves or carry a full glass of water to their mouth only with difficulty. This motor trouble exists rarely except in the accomplishment of voluntar movements, and ceases when the end is attained. It is thus, that the disordered movements which are seen while the patient attempts to pick up a pencil, cease as soon as he has succeeded in doing so. He then holds the pencil in his hand firmly and without trembling. Closing the eyes exerts here also a very feeble influence. During these different acts the head and body and

the trunk may participate in the oscillation of the limbs but regain the fixed position as soon as the movements, are accomplished and the subject has sufficiently regained his equilibrium. No noticeable diminution of muscular force is observed either in the upper or lower extremities.

Independently of the motor troubles that I have just indicated, I will draw your attention to certain muscular twitchings that some authors call fibrillary tremor, although in reality this phenomnon is not in any way analogous to the fine, almost incessant fibrillary contractions which are observed in different amyotrophies. These twitchings are seen in many of the muscles of the trunk and the limbs (back, thigh, fingers—Klippel, Durante). One frequently notices also the existence of *exaggerated contractions of the muscles of the face*, in the movement of mimicry, in those of the speech, or associated phenomena, during the execution of different movements of the limbs. Sometimes also subsultus of the tendons of the extremities is seen. Generally speaking these diverse manifestations on the part of the muscles may be observed equally in Friederich's disease. The study of the spasmodic phenomena, more or less developed in these patients, is particularly interesting, since it is in part owing to their existence that is based the constitution of this new clinical group.

In the first place the patellar reflexes are exaggerated, not always very markedly so, but all authors are agreed in describing them as presenting an intensity above the normal. In one of the cases of Klippel and Durante, and Francois H., they are noted as diminished in intensity. In any case this forms a very marked difference with the manner in which the reflexes are met with in typical Friedreich's disease, since in this latter they are, speaking generally, abolished; it is only, however, exceptionally that one finds them preserved, and then but rarely, except during the initial period of this disease. In cerebellar heredo-ataxia on the contrary the patellar reflexes exist in greater intensity than normal, even when the affection has lasted ten or fifteen years or more. Besides, according to Sanger Brown, the exaggeration of the patellar reflexes should be considered as an initial phenomenon preceding even the other morbid symptoms and serving as the first indication to foretell that such and such a member of the family will be attacked at a later period. A foot clonus has also been noted, but much more rarely (three cases of Sanger Brown). Finally, the greater number of authors speak of a spasmodic condition of the limbs more or less marked, especially of the lower limbs. Thus in one of the cases of Sanger Brown the "thighs are flexed nearly at a right angle; this contracture may be overcome partly by drawing with force on the limb in a slow and continuous manner." Klippel and Durante say "that in the case of Mlle. X. the condition of the reflexes is difficult to demonstrate, because of the rigidity produced when one wants to examine them." Nonne notes that in his three cases there was a difficulty in relaxation of the muscles in passive movement when the patient was ordered to do so. In the case of Botkine contractures arose from time to time in active and passive movements.

In regard to the sensibility, we have already seen, that sometimes, especially in the early stages, some pains of more or less intensity are experienced in the leg or in the loins. Sometimes, also, although rarely, objective troubles exist. Klippel and Durante note them in three cases; with Mlle. H—there existed complete anæthesia for all forms of sensibility on the internal surface of the leg and upon the crest of the tibia; there was besides a marked delay in the perception of sensation. With Louis H. tactile sensibility was abolished on the legs and feet; somewhat diminished on the forearms and hands; diminished on the face; preserved on the thighs on the arms, on the trunk; loss of sensibility to pain in the same region, except on the face. These disturbances of sensibility comprised sharply-limited zones at the knees and at the elbows. Heat was recognized everywhere; cold was not recognized in any part. Two points in order to be perceived on the limbs had to be separated 8 cm. These objective troubles do not belong to typical Friedriech's disease and would then form a new differential character in support of cerebellar heredo-ataxia.

(*To be concluded in the next issue.*)

---

SODUM PHOSPHATE IN LOCOMOTOR ATAXIA.—Mr. Corder writes to the *Lancet* that he has had good results from the hypodermic injection of ten centigrammes of phosphate of soda in one gramme of vehicle every other day. Other observers have found much benefit from this form of treatment.

# NEW METHOD OF DIAGNOSIS OF DISEASES OF THE ACCESSORY SINUSES OF THE NOSE.

BY MURRAY M'FARLANE, M.D.,

Late Clin. Ass't New York Polyclinic, Rhinologist, etc., St. Michael's Hospital, Toronto.

The first and most essential step in the treatment of any disease is a correct diagnosis of existing conditions, in order that the primary or exciting cause may be removed, if possible; and it is in the field of scientific diagnosis that medicine and surgery are making their most rapid advances. This is nowhere more apparent than in the special branches of surgery, due, undoubtedly, to the more localized attention given to the disorders of the part specially studied. It is not very long since that chronic rhinitis, or post-nasal catarrh, was considered a sufficiently accurate diagnosis of a certain existing nasal condition, and the treatment upon the line of diagnosis proved so unsuccessful that the very word catarrh had an ominous sound in medical ears. Next, it became obvious that certain mechanical conditions, such as various obstructions and hypertrophies, existed, and their removal was followed, in a large percentage of cases, by marked amelioration of the symptoms, yet these exist in many cases presenting annoying symptoms, which are unaccompanied by any obvious respiratory difficulties, and not due to mechanical obstruction pressing upon the sensitive septal nerve areas. So that when we have more scientific methods for exploring the accessory cavities of the nose, new symptoms, often dignified in the text books by such names as suppurative rhinitis, ozena, post-nasal catarrh, and some varieties of atrophic rhinitis, will disappear as diseases *per se* from current literature.

The sinus most liable to disease is the maxillary antrum, due, as many observers think, to disease of the teeth. Among those holding this view are such men as Christopher Heath, Semon, McBride, and others; on the other hand, Greville Macdonald, Zuckerkandl, Krause, and other eminent specialists, have shown that the majority of their cases have arisen from nasal diseases, or were due to suppuration of the frontal sinus or anterior and posterior ethmoidal cells, the overflow of pus from these cavities having a tendency to flow into the antrum, this being assisted by the anatomical situation of the valve-like flat of mucous membrane over the ostium maxillæ, as G. Caldwell, of New York, has demonstrated. From the peculiar situation of the sinuses, it often becomes a difficult matter to be definitely certain as to whether pus is present or not, and the purpose of this paper is to point out an easy and sufficiently correct method of diagnosis, and one which any general practitioner can make use of.

Such means are to be found in the transillumination of the sinuses by means of a miniature incandescent electric lamp, of about four or five candle power, placed in the mouth, the lips being closed, and the room made perfectly dark. The current is then turned on, when at once a rosy glow suffuses the face, the lips and cheeks being most brightly illuminated, the intensity of the light decreasing as the orbits are approached. The light is equal in intensity on both sides of the face if the antra be normal. In blondes and the anæmic the light is brighter than in brunettes, but there exists in health a bilateral equality of brightness, and a normal relation between the light and shade.

Variations of intensity in the two sides is significant, and, as a usual thing, indicates disease of the darker side; although Greville Macdonald operated on a case of atrophic rhinitis where the darkness of one side made him suspect pus in the antrum, only to find himself mistaken; in this case, however, no other signs of antral mischief were present.

Pus, solid tumors, or polypoid degeneration of the antral mucosa, causes a shading of the entire affected side, while cancerous syphilitic or tuberculous growths cause a corresponding darkness from their interference with the transmission of light.

It should, however, be noted that on the other hand, a large mucous polypus, by its translucence and higher refractive power, will cause an intensity of light on the diseased side, so that to confirm the diagnosis, the light should be viewed by means of a nasal speculum. The floor of the nose, unless diseased, clearly transmits the light, while, if the outer wall be darkened, disease of the antrum is almost certainly present.

It is usual to consider the ethmoid cells as out of reach of transillumination, yet in one case I

was enabled to diagnose the presence of disease in this locality by using a small protected lamp pressed between the lid and the inner orbital wall, and observing the illumination of the cells and superior meatus through the nose.

The examination of the frontal sinus is conducted in the same way, the lamp being placed against the under side of the supra-orbital ridge, and observing the illumination, after testing both sides. But disease of this sinuse is very rare, owing to the excellent drainage afforded in acute diseases of the part, by the infundibulum leading from its lower part to the nose.

The simple nature of these tests, the ease with which they may be applied, and the comparatively correct result obtained, should bring transillumination into general use.

## Correspondence.

Editor CANADA LANCET:

DEAR SIR,—The following details of a case may prove interesting to your readers:

Mrs. M———, aged 44 years, married 21 years, tall, stout, and of nervous temperament. She was *never* pregnant until some 9½ months ago. Pregnancy proceeded normally to term. Labor was protracted about 15 hours. Delivery was with very great difficulty accomplished by the forceps, under chloroform. The child, which weighed *12* pounds, had a double turn of the cord about its neck, and was still-born. The mother has done well.

T. P. MCCULLOUGH.

Everett, Ont., Dec. 12, 1893.

## Selected Articles.

### HEART DISEASE IN CHILDREN.

#### INTRODUCTION.

I think it will be of more practical utility if I can lead this discussion in a direction tending to throw light upon conditions which are yet imperfectly understood, though common, rather than to refer to cases chiefly interesting on account of their rarity. Partly on this account and partly because of the little scope which such cases offer for practical therapeutics, I do not intend to make any reference to congenital heart disease.

In considering the subject of heart disease in children, the first broad fact that strikes us is the extreme frequency with which evidence of cardiac lesions is found, especially of regurgitation through the mitral valve. Mitral regurgitation causing overt, and even urgent, symptoms, is by no means rare in children, that is, before the age of 12 or 13. But the cases in which, without obvious heart symptoms, *bruits* are found indicating mitral incompetence, are incalculably more common. I have not actual statistics before me, but I believe I am justified in stating that nearly, if not quite, half of the cases treated in the medical wards of the Newcastle Children's Hospital present *bruits* indicating some degree of imperfect closure of the mitral valve. I need scarcely add that the proportion of cases which are admitted on account of obvious heart symptoms is nothing like so large. For fear of misconception, I will remark at once that when I speak of *bruits* indicating imperfect closure of the mitral valve, I do not wish it to be understood that I regard every systolic *bruit* audible at the apex of the heart as proof of deformity of the mitral valve. As I shall have to insist further on, there is no fact in connection with this subject which more needs to be emphasized than this—that there may be, and often is, mitral incompetence without any deformity of the valve curtains themselves.

We start, then, from this point, that mitral regurgitation is extremely common in children, much more common, I am sure, than would be supposed by any who are not accustomed to observe and record physical signs with more than ordinary minuteness, and very much more common than is found to be the case in adults, at least, if we leave out of calculation cases occurring in young women and due to chlorosis. We have, then, two problems to consider; first, the etiology of heart disease, and especially mitral regurgitation, in children; and secondly, the later history.

#### ETIOLOGY.

Without doubt many cases of heart disease in children are really rheumatic in origin, even where no history can be obtained of an attack of rheumatism of the joints. It is a clinical commonplace that rheumatism in children affects the heart more frequently than in adults, and that the joint affection is usually milder in children. But this is only a small part of the truth. Cases certainly do occur in which acute endocarditis or pericarditis may be the only local manifestation of an attack of acute rheumatism, there being no joint affection at all. It is admitted that this may occur in adults; but it happens much more frequently in children. I may mention, as a typical instance of this form of disease, a little girl who was admitted into hospital under my care for chorea. The chorea followed a fright, and was of the ordinary type, moderate in severity. A systolic *bruit* at

the apex was audible when the child was admitted. When the child was almost entirely recovered from the chorea, she suddenly developed a high degree of pyrexia, with severe cardiac distress. There was no joint affection. After a time the acute disease subsided, but it was evident that the heart was left in a worse condition than before. Here was a case of severe acute endocarditis, which, by its occurrence during convalescence from chorea, is stamped as almost certainly rheumatic. But suppose a milder case to occur, without the coincidence of chorea as a guide, it is very likely that the nature of the disease will be misunderstood, or even that it may be entirely overlooked, though quite severe enough to leave behind permanent injury in the valves of the heart. Children often appear tolerant of a considerable degree of pyrexia, so that in hospitals, where the temperature is regularly taken as a matter of routine, it is not at all uncommon to find that the thermometer reveals a feverish state of which the appearance and demeanor of the patient gave no hint. Even when *malaise* is sufficient to lead to the discovery of pyrexia, there may be little to draw attention to the heart as the seat of the disease, and no examination may be made; and even if it is otherwise and some *bruit* is discovered, unless the practitioner has happenad to have examined the heart shortly before the appearance of the acute disease, any morbid signs which are observed may not be recognised as recent; they may be taken to be the result of some older mischief. In all probability many cases of rheumatic endocarditis without joint affection do not produce sufficient obvious disturbance to bring them under medical treatment at all, although they may be quite sufficient to leave permanent injury to the valves.

Pericarditis is not quite so likely to escape notice, because it is more likely to be accompanied by local pain. I believe that these considerations give the key to the origin of many *bruits* in children where no history of rheumatism can be elicited by the closest inquiry. While I am on the subject of acute heart disease, I may mention that the so-called "malignant" or septic endocarditis sometimes occurs in children, and that even very severe examples of this grave disease may recover. A case which apparently belonged to this class was recently under my care in the Children's Hospital. A little girl, aged 12, who had suffered from the symptoms and presented the physical signs of phthisis for more than a year, showed also the evidence of mitral stenosis. This combination of conditions, so very rarely found associated, is in itself sufficient to make the case one of unusual interest. But its after-history was still more remarkable. While the child was in the hospital under treatment for the phthisis her temperature rose rapidly and took on a septic type, with very wide excursions. At the same time there was very severe cardiac dyspnœa and distress, and *bruits* which varied greatly in character from time to time were heard. The spleen became enlarged and tender to pressure, and a hæmorrhage took place from the bowel which was very nearly fatal. After about five weeks the acute febrile disturbance gradually subsided. The child left the hospital with her heart apparently in no worse condition than before the acute attack. She has since presented herself occasionally amongst my out-patients, complaining more of her phthisis than of symptoms referable to the heart.

Although rheumatic endocarditis occurring without any accompanying affection of the joints may serve to explain many cases of heart disease arising in children which might otherwise be obscure, we must not conclude that this key will fit every lock. One of my recent cases has appeared to me to present unusual interest, just because it furnished a puzzle the solution of which seems well nigh impossible. A boy, about ten years of age, was under treatment in the hospital for severe bronchitis. He had recovered from this, and was for some time allowed to get up. I was about to discharge him one day, but just for routine's sake I examined him before doing so. To my astonishment I found a loud systolic *bruit*, audible over the whole precordial region and at the angle of the scapula. To suppose that this *bruit* had existed before, but had been overlooked both by the resident medical officer and myself, would only be admissible on the understanding that we had both been stone deaf. Under no other circumstances could we have failed to detect in our numerous examinations a *bruit* so widely diffused and so loud. Any attack of acute endocarditis, such as I have described above, was entirely excluded by the ascertained absence of pyrexia; for it is the custom in our hospital to have the temperatures of all patients recorded every night and morning. I sent the child back to bed, and kept him at rest under treatment with digitalis and iron for several weeks. But the *bruit* did not alter, except that it was sometimes audible at the angle of the scapula, and sometimes not so. It would, of course, be more satisfactory if a clear account could be given of the etiology of the heart lesion in this patient. But the case is worth recording if only to show that a mitral regurgitation (promising to be permanent) may arise under circumstances apparently excluding the ordinarily recognised causes of heart disease.

### After-History.

The extreme frequency of signs of mitral regurgitation in children, so greatly in excess of what is observed in adults, suggests the necessity of an explanation of the discrepancy. No doubt the

severer cases die early; but these are quite the exception, and the number of deaths from heart disease in children is quite insufficient to furnish the solution of the problem. Although we may admit that children having valvular defects (even though not presenting obvious heart symptoms) are likely to resist the attacks of other diseases less successfully than children who are not handicapped in the same way, yet even this would give a very insufficient account of the matter. I think the only explanation at all adequate is that in a very large proportion of cases the mitral incompetence observed in children disappears in later life. I wish it were possible to furnish statistics in support of this proposition. But that is obviously impossible. In the nature of things these mild and favorable cases are just the ones that disappear from our observation the soonest. Physicians to children's hospitals necessarily lose the opportunity of seeing them again in later life. Hence the difficulty of bringing to statistical proof the fact of which I am nevertheless strongly convinced, namely, that mitral regurgitation in children is a condition which is very frequently recovered from.

Now, it is probable that structural alteration of a valve, following endocarditis, may be more readily recovered from in childhood than in later life. But there is another condition equally capable of producing the phenomena observed, and much more readily recoverable—I mean regurgitation through the mitral valve produced by dilatation of the left ventricle. I believe that far less prominence has been given to this condition than it deserves in ordinary clinical teaching. Regurgitation through the tricuspid, arising in a similar manner, is a clinical commonplace. But when distinct evidence of mitral regurgitation is discovered, valvular lesion from old (or recent) endocarditis is usually assumed as the almost necessary corollary. Many authorities certainly speak of mitral incompetence following dilatation, but in ordinary clinical teaching the fact of its frequent occurrence is left in the background. I have shown elsewhere that it takes place in chlorosis much more commonly than is generally supposed. In 400 cases of chlorosis under my own care I found complete evidence of mitral regurgitation (a systolic *bruit* audible at the angle of the scapula, as well as at the apex) in 123. In many of these the graver physical signs were known to have appeared during the time that the chlorosis was getting worse from neglect of treatment; and in a still larger number they entirely disappeared when the anæmia was removed by the administration of iron. It was therefore evident that the mitral incompetence was due to dilatation, and not to any structural change in the valve itself. I cannot doubt that dilatation of the left ventricle plays a very important part in the production of these common mitral *bruits* in children. I am convinced that the small vegetations commonly observed on the edges of the valves in chorea do not explain the bruit which is so frequently heard in the course of that disease, and which is comparatively seldom permanent. For although such vegetations are rarely absent when a *post-mortem* examination is made after chorea, we must recollect that it is only in cases of altogether exceptional severity that death occurs. So that it is rather an unwarrantable assumption that endocarditis is a frequent accompaniment of the ordinary mild type of the disease which recovers. But there is a much stronger reason for doubting the causal relation of these tiny vegetations to the *bruits* in question. It is not at all likely that such vegetations would interfere with the closure of the valve. And, therefore, they would not produce a systolic *bruit;* if they produced any *bruit* at all it would be pre-systolic. But the bruit in chorea is usually, if not always, systolic. Probably these minute vegetations, when they do develop, have nothing to do with the ordinary transient *bruit* of chorea. I think that ventricular dilatation is a more satisfactory explanation than irregular—choreic—action of the musculi papillares. I once observed, in a girl, aged 11, who had suffered from chorea, a *bruit* audible at the pulmonary area only, the first sound at the apex being normal. The *bruit* disappeared under treatment. In another patient, whose age was 24 when I examined her, and who had suffered from chorea following a fright when she was about 10 years old, I found a *bruit* presystolic and systolic at the apex and systolic at the angle of the scapula. Here I should be disposed to attribute the damaged condition of the mitral valve to an attack of endocarditis such as I have above described, although I obtained no history pointing in that direction. This seems rather more probable than to lay the blame of such extensive damage to the chorea directly.

It should never be forgotten that, when signs of mitral regurgitation occur in the course of acute rheumatism, this is not necessarily due to endocarditis and its consequences. In a large number of instances a temporary dilatation of the left ventricle offers the more reasonable explanation. This suggests that all such cases should be treated by prolonged rest, with heart tonics, including iron. Even where actual valvular deformity exists, prolonged rest gives perhaps some chance of complete recovery, and certainly affords the best opportunity for the establishment of satisfactory compensation.

Dr. Townsend said that cardiac disease in children was due in most cases to a rheumatic cause, either hereditary or acquired, and was generally very insidious and not indicated by symptoms. To be found it must be looked for.

The localization of a *bruit* in the mitral area, particularly if heard in the posterior scapular region, was the only symptom that pointed out regurgitation through the mitral valve. As an explanation of the occasional disappearance of the *bruit*, Dr. Townsend suggested that the *bruit* might be due to dilatation of the ventricle, and that the restoration of the ventricle to its normal condition might explain the cessation of the *bruit* rather than that an organic lesion was absorbed. The principal dangers to life in these cases were sudden over-exertion, fresh attacks of rheumatism, or degeneration of the arteries in middle age.

Dr. Byers (Belfast) spoke of the frequency of mitral disease in female children, and pointed out the infrequency of the signs of sclerosis in young children as compared with those of regurgitation. He referred to the frequent occurrence of acute heart disease in children and of severe dilatation. He thought the great proportion of the cases of heart disease in chorea was organic, and he could corroborate Dr. Barlow's observations that when rheumatic nodules appeared in children the prognosis was bad.

Dr. Dawson Williams observed that the difficulty of prognosis in heart disease in children was often very great, and suggested that this difficulty was in large part due to incomplete knowledge of the etiology. There was no difficulty in accepting the rheumatic theory when a distinct history of rheumatic joint affections could be obtained, but he questioned whether it was allowable to accept a vague history of pains in the limbs as a history of rheumatism. Was the cardiac disease following scarlet fever truly rheumatic? The so-called malignant endocarditis, that is to say infection of he valves by pyogenic organisms, was, probably, not fatal in all cases, and might be responsible for a certain proportion of the cases of heart disease occurring in association with chorea as well as scarlet fever. The onset of cardiac disease in chorea was sometimes exceedingly insidious and unaccompanied by any obvious signs of rheumatism.

Dr. Colquhoun followed Dr. Dawson Williams in thinking that it was not safe to assume that all heart lesions in children were expressions of the rheumatic diathesis. It was safer to assume that we had not definite information on the subject, and wait until we knew more definitely what the poison of rheumatism was. The subject of heredity was very important, as children might no doubt be born with weak hearts, which were easily affected by causes which would not affect the normal heart.

The President (Dr. Barlow), while recognizing that other possible factors ought to be borne in mind, thought that it was only safe to exclude rheumatism after the history of the child had been thoroughly ascertained. When first seen there might be no evidence of rheumatism beyond a heart murmur, but later in the case affection of joints, muscular rheumatism, or erythema might be observed, and confirm the diagnosis of rheumatism. He agreed that cases of septic or malignant endocarditis might recover, at any rate from the acute attack. Dilatation was an important factor in the production of cardiac disorders in childhood, and might sometimes be observed in renal disease after scarlet fever. The difficulty of prognosis was often great in heart disease in childhood. He believed that, as a general rule, the louder the murmur the greater the implication of valves.—Dr. Coley, in *Br. Med. Jour.*

## EFFECT OF CASTRATION ON WOMAN, AND OTHER PROBLEMS IN GYNÆCOLOGY.

There are problems in gynæcology not yet fully solved, on which I propose in this paper to give my own individual opinion—an opinion that I do not claim to be infallible, but which is based upon a large experience.

One question not yet satisfactorily answered is this: What effect upon a woman has the removal of her ovaries? Unquestionably there usually follow the annoyances of the change of life. These, in my experience, are long spun out, because, when menstruation has been abruptly and artificially stopped, the change of life, especially in young women, takes more time to become fully established than when the menopause has been naturally induced. Consequently years may elapse before the victim of the operation escapes from the perspirations, the flashes of heat, the skin-tinglings, the numbness of the extremities, the nerve-storms, and all other vaso motor disturbances, the name of which is legion. My experience, therefore, coincides with that of Hegar, who says that "the artificial menopause induced by the operation is often attended with more serious complications than those which are not rarely observed in the natural change of life."

Then again, the unwelcome fact cannot be shirked, that mental disturbances may be traced directly to the removal of the ovaries as a cause. These are manifested by brooding, by low spirits, by melancholy and even by insanity. Every ovariotomist has met with such painful episodes in his practice. Glavaecke, who has made a study of this subject, goes so far as to declare that "in almost all cases the mind becomes more or less affected, and not infrequently melancholia results." Keith has stated that ten per cent. of his patients who recover from hysterectomy subsequently suffer from melancholia or from other forms of mental disease. Yet this result must come, not so much

from the extirpation of the womb, which is merely a muscular bag, as from the associated ablation of the ovaries, of which the womb, physiologically, is only the appendage.

Whether the deplorable event is due directly to the nerve-shock of the operation itself, together with its emotional environment; whether to the abrupt arrest of an habitual flow; or whether to the absolute need of the ovaries for mental equilibrium—is yet an open question. We know, however, that sexuality is a potent factor in woman as well as in man, and that even certain sexual functions—such as coition, menstruation, gestation, parturition, and lactation— of themselves tend not infrequently to disturb the mental poise. I am disposed, however, in a measure to attribute the attacks of insanity in those women who have lost their ovaries to their brooding over the thought that they are unsexed; and if brooding may be deemed in itself a mental aberration, Glavaecke's sweeping statement is not an extravagant one.

But, after all, the burning question is: Does the removal of the uterine appendages affect the sexual sense of the woman, or in any way unsex her? Here we have an embarrassing diversity of opinion. Some operators contend that in these respects castration does not affect her at all; others that it does so, and often very decidedly. The truth in such cases usually lies in the mean, as I shall try to show.

In my *Lessons in Gynæcology* and in my early teachings I maintained that the removal after puberty of the ovaries and the tubes does not unsex the woman—at least not to a greater extent than castration after puberty unsexes the man. In the one the ability to inseminate is lost; in the other the capability of being inseminated; but in both the sexual feelings remain pretty much the same. Males who have lost their testes after the age of puberty are said to retain the power of erection, and even of ejaculation, the fluid being of course merely a lubricating one. The amorous proclivities of the ox or of the steer are the scandal of our highways. Alive to these facts, Oriental jealousy demands in a eunuch the complete ablation of the genital organs. Not only are the testes, therefore, removed, but also the scrotum and the penis flush with the tubes. Hence, to avoid the soiling of his clothes, every eunuch carries in his pocket a short silver tube, which he inserts merely in the pubic meatus whenever he passes his water. I contended, further, that, apart from cessation of menstruation and from inevitable sterility, the woman after castration remains unchanged, having the same natural instincts and affections; that the sexual organs continue excitable, and that she is just as womanly and womanish as ever. I held that the seat of sexuality in woman had long been sought for, but in vain. The clitoris had been amputated, the nymphæ had been excised, and the ovaries and tubes extirpated; yet the sexual desire had survived these mutilations. The seat had not been found, because sexuality is not a member or an organ, but a sense—a sense dependent on the sexual apparatus, not for its being, but merely for its fruition. My inference was that the physical and psychic influence of the ovaries upon woman had been greatly overrated. In the popular mind a woman without ovaries is not a woman. Even Virchow contends that "on these two organs (the ovaries) depend all the specific properties of her body and her mind, all her nutrition and her nervous sensibility, the delicacy and roundness of her figure, and, in fact, all other womanly characteristics." This statement I held to be true only in so far as the ovaries are needful for the primary or rudimental development of woman, but not true when once she is developed; for then they are not essential to her perpetuation as woman.

In time, however, I slowly found out that the removal of the ovaries does blunt and often does extinguish ultimately the sexual feeling in woman; although the removal of the testes after puberty is said not to impair the virile sense of the male. This random opinion, however, I very much doubt, despite the maudlin sentiment expressed even about eunuchs by De Amicis and by other travellers in the Orient. For the secretion of the seminal fluid is in itself the great aphrodisiac, and how otherwise can we explain the changed behavior of Abelard toward Heloise after his forcible castration? Giving up this analogy, therefore, in my more recent teachings I adopted that of the menopause as suggested by Kœberle. I accepted his analogy, although I could not wholly accept his inference that a woman is not affected sexually by the natural cessation of her menses. Kœberle sums up his opinion in the following words: "In my own experience the extirpation of both ovaries causes no marked change in the general condition of those who have been operated on. They are women who may be considered as having abruptly reached the climacteric. Their instincts and affections remain the same, their sexual organs continue excitable, and their breasts do not wither up."

A riper experience, of which time was the main element, has led me still further to modify my views on this subject. Unquestionably the natural change of life when fully established, but not until it is fully established, does not sensibly dull and deaden the sexual sense of woman, which ultimately disappears in her long before virtility is effaced in man, nor is the survival of this sense after the menopause so essential to woman, because after the cessation of menstruation she loses the power of procreation, which is retained to an advanced age by man. This is a wise provision of Nature, for did the sexual sense of the wife oulast that of the the husband, it could not be gratified. Sensible of

these changes, a gifted French authoress makes one of her heroines say, with italicized emphasis: "*Men* may forget the course of years; they may love and become parents at a more advanced period than we can, for Nature prescribes a term after which there seems to be something monstrous and impious in the idea of (our) seeking to awaken love. . . . . Yes; age close our mission *as women* and deprives us of our sex." Now what happens in the natural menopause holds good in that artificially and abruptly produced, with this important difference, that in the latter the sexual feeling is sooner lost. I am willing to concede that in some women, by no means in all, whose health had been so crippled by diseased appendages as to extinguish all sexual feelings, there is, after castration, a partial recovery of the lost sense whenever health has been regained. Yet even in these cases, as far as I can ascertain—for women are loath to talk about these matters—the flame merely flares up, flickers, and soon goes out.

My own experience would lead me to the conclusion that in the majority of women who have been castrated the sexual impulse soon abates in intensity, much sooner than after a natural menopause, and that in many cases it wholly dissappears. This tallies with Glavaecke's conclusion that "in most of the cases the sexual desire is notably diminished and in many cases is extinguished." In corroboration of this statement let me cite, out of my many cases in point, a few of the more salient ones. The wife, aged thirty-four, of a farmer, so exhausted him by her sexual exactions that his health suffered very seriously. The appendages were diseased and fixed by adhesions. After their removal menstruation and the sexual impulse continued unabated for a little over a year, when the former wholly ceased, and the latter not long after disappeared. Another case was the very ardent wife, aged thirty, of a man who was not so well-mated to her. She was sterile and had excessive menorrhagia from a uterine fibroid, for which her ovaries were removed. Menstruation did not reappear, and in less than two years all sexual feeling was lost. In a third case, a young lady of high intelligence was reduced to a pitiable condition of ill-health by menorrhagia and by frequent acts of self-abuse. She was not insane, yet incredible as it may seem, she sometimes masturbated no fewer than eight times in the four and twenty hours. For several months after the removal of the ovaries, which were apparently healthy in every respect, she kept up her bad habits, although the monthly flow never returned. Then the sexual feeling gradually vanished, and she gave up her solitary vice. In a fourth case I removed the healthy ovaries of an unmarried lady of a middle age who was queer, but not insane enough to be confined. Toward her monthly periods she was goaded by so irresistible a desire for sexual intercourse that she herself feared her going astray. Not long after castration, which was done more to save her from reproach than to cure her insanity, she lost the desire wholly and absolutely. She did not, however regain her reason, and ultimately had to be placed in an insane asylum.

Imlach's case is a celebrated one in medico-legal jurisprudence. This skilful surgeon, after removing the appendages of a woman, was prosecuted by her for unsexing her, and by her husband for spoiling thereby his marital pleasures. The special committee appointed to investigate Imlach's numerous cases of castration at the Woman's Hospital, in Liverpool, reported that they found "a distinct loss of sexual feeling to such an extent as to cause serious domestic unhappiness in not a few instances." The correctness of this report is corroborated from cases in my own practice, of engagements broken off, of conjugal estrangements, and of marital infidelity.

Let me here remark that I was once consulted by the late Dr. Kerlin about the propriety of removing the ovaries from a feeble minded inmate of his institution, whose shameless intercourse with the other sex was the only bar to her being at large. Being very sanguine that the operation would succeed in its object I urged its performance. He, however, could not get the official sanction which we both wished for our own legal protection, and nothing further was done than to keep the girl under lock and key.

In other sexual characteristics I have not found in these women any marked changes, either physical or psychic. Their affections seem to remain the same; their breasts do not flatten or wither up; they do not become obese; abnormal growths of hair do not appear on the face or on the body, and the tone of their voice and its quality are not changed. In one word there has not been in a single one of my cases a tendency toward any characteristic of the male type. If any change has taken place, it has been in the direction of old-maidhood.

In close relation with this subject four questions come to the fore, and grave ones they are:

*a.* Do chronic diseases of the appendages often lead to fatal issue?

*b.* To restore health to the woman suffering from such diseases of the appendages, it is needful invariably to invoke the aid of surgery?

*c.* After an abdominal section has been made, and after adhesions have been broken, must the now free appendages always be removed?

*d.* Is castration of the female a warrantable operation for the cure of insanity or of epilepsy?

To the first question I answer that the death-rate from chronic diseases of the appendages is greatly overrated, so much so that, in my opinion, more deaths result from the operation of removing the tubes and ovaries, in the hands of even the most successful gynæcologist, than from the disease itself.

Knowsley Thornton states that "his own experience pyosalpinx is not necessarily a fatal disease." In my experience, after the patient has safely passed through the acute stage of the inflammtory attack, her life is in very little danger. Chronic diseases of the appendages usually affect the well-being of the woman but they ordinarily do not threaten her life in any other way than by the wear and tear of prolonged discomfort. This may shorten her days, but fatal attacks of peritonitis, even in so-called leaky pus tubes—if such ever exist—are the exception. Paradoxic as it may seem, the life of a woman with but one ailing appendage is in greater danger than the life of a woman with both her appendages diseased. The explanation is a simple one: Parturition very generally relights a chronic inflammation of the pelvic organs, but when both appendages are diseased pregnancy rarely takes place.

To cure the ill-health of a woman whose appendages are diseased, or to relieve her from her sufferings, a surgical operation is by no means always necessary. Many women with adherent tubes and ovaries, and, for the matter of that, some even with pus in these organs, suffer either no inconvenience whatever, or very little indeed from that condition *per se*. There are, again, others who have pains or aches only at their monthly periods. But let their health break down, say from influenza, from malaria, from overwork, or from nerve-strain, then symptoms may arise from hitherto latent pelvic lesions. Yet, in most of these cases, if the woman be restored to her former condition of health —that is to say, that which she enjoyed before the final breakdown—she will lose her local symptoms and become symptomatically well. On this matter I can speak positively, for many a patient has been sent to my own private hospital in order to have her distinctly diseased tubes and ovaries removed, who has been restored to health without the use of the knife. Now, by the term "*restored to health*," I do not mean that the treatment has released the adherent appendages, but that it has freed the woman from every pain and restored her fully to all her social and domestic duties and pleasures. She has been cured so well as to be able to row, to swim, to dance, to take long walks, to ride on horseback and to exercise in the gymnasium—and what better vouchers of good health than these can be given.

I will go yet further and assert that even cases with all the subjective and all the objective symptoms of ovarian or of tubal abscess have been cured by me without any operation whatever—the pus having disappeared either through absorption or through inspissation. What is still more strange, in a few cases of abscess of each uterine appendage—very few, I will acknowledge—the treatment by massage, electricity, local applications, and by a general building up of the system was followed by conception, pregnancy, and parturition. These were cases in which I did not advocate castration until other means had been tried first but all had been sent to me by their physicians for the purpose of having their ovaries removed.

I come now to two cases on which I urged castration. Perhaps I have had more, but I cannot recall them. Each one had the fixed, sausage-like, tubal tumor on either side. Yet each patient, to my very great surprise, conceived and bore children. The one, a patient of my friend Dr. D. Murray Cheston, first consulted me and afterward a gynæcologist of world-wide renown, who corroborated my diagnosis of double pus-tubes, and doomed her, as I had, to hopeless sterility. The puerperal convalescence was stormy and at one time threatening; but she ultimately got well. The other case is a standing joke of my friend Professor Parvin, who knew the circumstances. The woman presented similar characteristics to those of the preceding case, and I urged an operation. This she luckily refused to undergo, and a year or more afterward gave birth to twins. Of course, the rejoinder will be made, that my diagnosis, although shared by other specialists besides myself, was a faulty one. But I can as unhesitatingly reply that had the objector made the examination he inevitably would have removed both appendages, as I certainly should have done had I opened the abdomen.

Now, in these cases, the pus was either confined to the ovaries, or, as I supposed from the sausage-like form of the tumors, it lay sealed up in the tubes, and the closed-up lumen of one of them was, by returning health, restored to full patency. The possibility of a closed-up tube regaining its bore is I know strongly disputed, even ridiculed, and *a priori* reasoning would certainly justify the doubt. If, however, solid uterine fibroids of stony hardness and of several pounds weight will through absorption wholly disappear, as every gynæcologist has seen them disappear, why may not the tubal barriers and septa also break down and become absorbed. I have read somewhere, but the reference I cannot now find, that in order to prevent conception in a case of narrow pelvis, both tubes were ligated, without establishing sterility. On the other hand, great disorganization of the ovaries is not incompatible with pregnancy, for it appears that a very small amount of ovarian stroma goes a great way. Menstruation often continues, however diseased the ovaries may be, and Atlee reports two cases in which one ovary having been removed, the other became so cystic as to need *repeated tappings*. Yet each woman not only menstruated, but conceived and gave birth to a child. In one of these cases, a cyst of the sole ovary, the other having been removed many years previously, was tapped twice before delivery, seven times afterwards and then was

extirpated. Robertson mentions a remarkable case in point, which occurred in his practice. He removed both the ovaries, which were diseased, of one of his patients, yet she afterward conceived and gave birth to a child. His explanation is that he must have left, unwittingly a scrap of healthy ovarian tissue in one of the stumps. But on the other hand, the ovum could not have decended into the womb, unless the lumen of one tube had re-opened at the point where it had been sealed up by the adhesive inflammation set up by the ligature.

With regard to the third problem: Supposing simply therapeutic measures fail, and the physician is driven to surgical interference, must he, after breaking up the adhesions, always extirpate the now free uterine appendages? Most surgeons contend not only that the diseased appendage should be removed, but also that both appendages should be extirpated, even if one alone is diseased. This advice is given on the ground that the healthy one is liable in its turn to become affected. My own course, under such circumstances, would be never to remove the healthy appendage unless the menopause had been established already, or unless there obtained a good reason for hastening it on. On the other hand, should both ovaries be intrinsically diseased and their tubes contain pus, I would always remove both uterine appendages in their totality, no matter what the age of the patient might be. Generally, however, the pus is limited to the tubes, and in that case sometimes one ovary, barring its adhesions, which, of course, must be broken, is healthy enough to be left behind. In such a case the tube alone, if possible, should be removed, and not the healthy ovary or the healthy ovaries—if both happen to be sound. Further, rather than wholly remove all ovarian stroma, I should try in such cases to leave behind even a small fragment; for, in several of my cases in which a piece of an ovary, not larger than a bean, was left behind, not any menstrual or sexual changes whatever took place in the woman. Should the uterine appendages be merely adherent and not intrinsically diseased to any extent, I would as a rule, during active menstrual life, release them, and perhaps extirpate the worse of the two, but not both of them.

My reasons for this conservative treatment are, that the complete extirpation of these organs, as I have shown before, tends to destroy the sexual feeling, to disturb the mental equilibrium, and to produce prolonged nervous perturbations, all of which come from the abrupt and untimely suspension of menstruation. There is yet another very excellent reason for this advice: The majority of physicians, and all laymen, look upon women deprived of their ovaries as unsexed. Just as castration is in the male, so the analogous operation is in the female deemed a sexual mutilation to which common consent attaches a stigma. No woman would marry a eunuch, and few men would wed a woman deprived of her ovaries. In my own practice I have known of several very sad cases of marriage engagements broken off, of martial infidelities, and of bitter estrangement between husband and wife, all of which would have been avoided had one ovary been spared, or indeed, had a mere fragment of one been left behind.

Upon the question of the removal of the uterine appendages for the cure of insanity and of epilepsy, I have very few words to say, but they are all based upon cases occurring in my own practice. If the insanity is limited to periodic outbreaks, strictly ovarian in their character and with the menstrual flux as a storm-cutter; if the epileptic fits are preceded by an ovarian aura—that is to say, if they pivot around the monthly period and appear at no other time—the removal of the appendages, by suppressing a pernicious menstruation, usually will bring about a cure in either disease. But when these organs are extirpated merely as a panacea *per se* for these mental and neural disorders, irrespective of an ovarian origin, the operation affords no relief. At the same time I am free to confess that, in order to stamp out insanity, I am strongly inclined to advocate the legal castration of every man and of every woman who is the unfortunate victim of this hereditary curse—William Goodell, in *Med. News.*

## JAPANESE NURSERY NOTES.

It has often been said that the Japanese are the most interesting, the strangest, even the quaintest, people we know. In no regard is this truer than in the care they take of their babies. Such a strong foundation is more necessary than elsewhere to a nation where man is born to remain a baby his whole life. We, destined to exercise stronger and more serious minds, would be, at the very beginning of our existence, deteriorated by such ingenious untiring care.

I have spoken, in another article, of the long continued lactation of Japanese women in benefiting both mother and the child; also of the care taken of pregnant woman, in which a solicitude displays itself at the same time clever and loving. These tender and intelligent attentions paid to the born baby is the second part of that unique Japanese system of rearing healthy and happy men, which makes European and American ladies forget that so many other Japanese conceits are a severe shock to their feelings.

During the dentition period the children have an extra diet, consisting of fish and small crustaceæ. Japanese not being a carnivorous people, this is natural enough. If they ate meat they

would give their children beef very likely. But it is certainly to the advantage of the bony structure of the child to be, on first entering the adult course of eating, fed in the Japanese manner.

The abominable diaper is unknown to the Japanese. They use only a breech clout, which is removed at the moment of defecation. The child is then put in such a position that its legs straddle the arms, its body and head resting against the abdomen of the parent who, gently rocking it in a certain rhythmical, tentative fashion, and accompanying this action with a kind of low whistling, reminding you of a lullaby, gives her offspring its first lesson in personal cleanliness, which to the Japanese mind is exceedingly next to godliness. It will be seen how by this method unnatural positions are avoided, a thing the more important that Japan is the country of worms, distomata, etc.

It is known probably to every reading person that Japan, like all oriential lands, is for obvious reasons, furnitureless. It does not even know the cradle. As Diogenes made a cup of his hollow hand, thus the Japanese mother makes a cradle of the back of an older child, an ambulating, delightful cradle, where it stays from morning to night, and is unrhythmically rocked according to the chances and sports which the day offers to its patient and loving victim. Her back, of course, is its first cradle; when it wants the breast it reaches over or under her arm for it.

The cause of the absence of furniture is the presence of tropical vermin. This awful presence is probably, also, the cause of the carpetless state of the nursery.

The floor is covered with stuffed straw mats, thick and elastic; it is the usual floor of a Japanese house. The floor is mopped every day with salt water; it is in fact a chlorine wash. It must be remembered that in Japan the dirt of the street is not carried into the room, sandals and shoes being left at the front door. The necessity of keeping the floor in a sanitary condition is more important in Japan than anywhere else, because of the national habit not only of sitting but sleeping on the floor.

There is a singular difference between the carriage of Japanese children and the way in which our children walk and move about. The Japanese urchin, whose feet never knew the unkind pressure of tight shoes, and, in fact, no pressure at all, walks more erect, is more sure-footed. In fair weather he wears flat shoe sandals; in these sandals the big toe is widely separated from the others, which gives the child a surer foundation. In wet weather he must maintain his equilibrim on his stilt-like wooden clogs, which keep his feet dry, at the same time compelling him to acquire an extraordinary power over his own motions.

There is in Japan no kissing, not even in the nursery. All the dangers which have been so eloquently described in newspapers some time ago, arising from the touch of lips, in human love directly, and at the communion table indirectly, are avoided by the national aversion for labial contact.

The sexes are separated at an early age, and the separation is maintained until marriage. After marriage the husband has the right to annex to his household as many concubines as his means will allow. If is wife is delicate, he will perhaps suggest some friend of hers, who will prove rather an ally than a rival; at any rate, there will be no diminution of the friendship between the two women. When pregnancy occurs, a second concubine may be suggested, and no such addition ever troubles the quiet waters of a Japanese household. It is incredible what amount of peace, and consequently happiness, the absence of the green-eyed monster alone may be the cause.

When she loses a child the Japanese mother does not wring her hands and look up to heaven; she sits, with folded hands, sunken head, her eyes looking into her lap. Japanese grief has been very eloquently described by my colleague in Japan, Professor Wernick, and I think it will be a good winding up of this little article if I quote a passage of his remarkable book, "Geographico-Medical Studies:"

"However often I have witnessed the death of dear relations—children for instance, or husbands—I never had occasion to observe the wringing of hands to which European women of the lower classes are much addicted. A bitter sorrow was expressed through deep sinking of the head, grasping of the hands together, shedding of tears. That strong mental agony which digs into the soul, so to speak, and takes hold of it like a bodily pain, seems to be unknown to them. They never turn to heaven, their faces bathed in tears, an action which to us seems not only natural and in perfect accord with the essence of grief, but it is considered as beautiful and as a worthy subject of artistic representation. In prayer, the Japanese mother does not lift her eyes to heaven; with bent head, the body somewhat shrunk together, with hands put together by the palms and slightly raised to the level of the chin, she sends her humble prayer for quiet concrete things, you may be sure, to Buddha."—Albert S. Ashmead, M.D., in *Univ. Med. Mag.*

## PRACTICAL POST-MORTEM NOTES

Get all the anatomical knowledge possible out of every autopsy; it is therefore advisable, especially in females, to perform a preliminary laparotomy. Many surgical operations can be practiced upon the body without disfigurement, such as

Alexander's operation, oöphorectomy, removal of the ear ossicles and the vermiform appendix, stretching of the sciatic nerve, symphysiotomy, etc.

Dictate the post-mortem notes while the autopsy is in progress.

Respect the feelings of the friends in every possible manner, and in a private house always return everything to its proper place; be sure to leave no blood marks behind.

Be sure of a legal right to make the post-mortem before beginning. The nearest relative, or the one that pays the expenses of the funeral, should give the consent *in writing!*

Do not take away more tissue than can be thoroughly worked up.

Encourage a demand among the laity for the performances of autopsies.

In making an autopsy have a regular method, to be modified only by exceptional circumstances. Finish the examination of each organ in as thorough a manner as possible before the examination of another is undertaken.

Label all specimens at once with name of subject, character of the specimen, relations in the body, date, and preservative fluid employed.

If unfortunate enough to inflict a dissecting-wound, wash the same with running water for four or five minutes, then dress antiseptically—do not out of bravado go on with the post-mortem if there be anyone else present who can complete it

If not making the autopsy personally, do not be too forward in suggestions; but always remain ready to do anything in connection therewith that may be asked.

Tact will secure many autopsies; curiosity of relatives and friends can often be worked upon to secure permission.

As the object of an autopsy is, usually, to discover the cause of death, either for legal or scientific purposes, it should therefore be conducted in as thorough and accurate a manner as possible.

In legal cases be sure to protect yourself in every way. The jars (which should never have been used) containing the specimens, should be sealed in the presence of witnesses. In important cases in Philadelphia, the coronor has both of his physicians present at the autopsy, so that the testimony is stronger; in case of absence of one of the physicians the other can go on the witness stand and the case not be posponed.

If you value peace of mind, do not put yourself forward as an expert witness in medico-legal matters. Knowledge which you already have should be freely given to the court in criminal cases, but the court cannot compel you to obtain expert knowledge without your consent.

In Germany the legal evidence of a post-mortem held by gaslight has been judged by the court, except under certain peculiar circumstances, to be void.

If two persons are lifting the body, the lightest weight is at the feet.

Chloroform, when placed on a towel and the head enveloped in the towel, will quickly dispose of pediculi capitis.

Many signs of inflammation, especially of the mucous membrane, disappear after death. Remember that red flannel often colors the skin red.

Make of the undertaker a friend.

It is a good knife that will keep its edge in more than one post-mortem.

Do not jump at conclusions too quickly; tentative diagnosis alone should be made until the post-mortem is complete.

Always weigh the important organs, and have some method by which you can tell the right from the left in case of double organs; one nick in the left-sided organs and two in the right will readily distinguish them.

Wash hands frequently during autopsy, so as not to allow the blood to dry on the skin.

In opening a cystic kidney be careful the contents do not injure the eyes or soil the linen, as when opened the liquid is under pressure and may squirt several feet.

A duct can often be easily followed by making a nick in it, and then introducing a piece of broom-straw or a groove-director in the direction desired to dissect; this is especially useful in the ureters and the ductus choledochus communis.

In writing the account, describe what you see; do not use names of diseased conditions—these should be put in under the head of pathological diagnosis.

Urine or aromatic spirits of ammonia will best take off odor from the hands; this odor is usually gotten from opening the intestines.

Ammonia spirit, or aromatic spirit, will remove iodine stains; a weak solution of hypo-bromite solution will remove carbo-fuchsin and other anilin stains.

Any organ desired to be saved should be placed in a safe place so that it will not be returned to the body and sewed up.

The dissecting room is a poor place to study pathology, on account of the chloride of zinc forming with albumen an insoluble albuminate.

Nervous tissue for miscroscopic study should not be placed in zinc chloride or in alcohol.

Remember the post-mortem, with the exception of the brain and cord, can be made with a pen-knife.

Also that the thoracic and abdominal organs can be removed by the rectum or vagina.

Before removing the calvarium, have a basin so placed that it will receive the blood and cerebro-spinal fluid.

Drawings, photographs, casts, cultures of micro-organisms and microscopic slides are valuable additions to a well written account of an autopsy.

A lesion in one part of the body will often suggest a careful search for another in some other part.

Do not mistake the normal for the abnormal.

Squeezing the gall-bladder after the duodenum has been laid open, will often cause bile to pass out, and the papilla, the ending of the common bile-duct, can thus be demonstrated.

Remember frozeu sections of fresh tissue can be cut and mounted in a half-hour to an hour.

Three hours is none too long in which to make a complete autopsy.

Be careful that the first rib does not scratch your hands when removing the tissues in that region; therefore cover over the cut ends of clavicle and ribs with the skin flaps.

Blood makes a good glue for affixing labels, and the blood of a person dying from hydrocyanic poisoning makes an excellent red ink which will keep for years without the addition of any preservative fluid.

Remember that after the brain has been sequestered the fundus of the eye can be removed by a circular incision posteriorly, without disfigurement. The inside should then be stuffed with dark colored wool or cloth.

In private cases you will be frequently judged of your skill as a pathologist by the neatness with which you sew up the body.

If you discover suspicious lesions always stop the post-mortem and report the case at once to the coroner.

Remember in warm weather the intestines are especially liable to undergo rapid decomposition when exposed to the air.

Remember a railway train or cart can pass over the body and leave no abrasion on the skin more than a brush burn.

Remember the color of organs is frequently changed when exposed to the air by the oxydation of the hæmoglobin. Also that the sulphide of iron frequently discolors organs after death, due to the sulphuretted hydrogen during decomposition precipitating the *Fe* of the hæmoglobin.

The clavicle can be grasped and moved, and the claviculo-sternal articulation thus readily discovered.

In removing the cord the following method may be used without disfigurement to the skin of the back part of the neck: Make a circular incision from the middle of trapezius muscle on one side, to the middle of the same muscle of the other side, using as the centre of the circle the external occipital protuberance—this will take in the median line to about the second dorsal vertebra; then dissect away the skin with the muscles attached, and elevate this flap with a tenaculum, and draw the shoulders backward. A sufficient amount of space will be given to then remove the cord in the usual manner.

If the rectus muscle on each side be cut near its origin, in the direction of Pouprat's ligament, the abdominal cavity will be much more thoroughly exposed to view than in the ordinary manner. First, however, examine with the finger for hernia.

Lastly, be honest. Everyone diagnosis lesions during life which are not found during post-mortem. After a most careful autopsy it is often impossible to tell the cause of the patient's death.—Henry W. Cattell, A.M., M.D. in *Medical Age.*

## UTERINE CURETTE.

Dr. Robert Bell, of Glasgow, writes, *Br. Med. Jour.*, that as endometritis always results in a hypertrophied condition of the lining membrane of the uterine canal, this sometimes, and not unfrequently developing into a fungoid or villous condition. It is therefore of the greatest importance to adopt measures which shall enable one to reach the comparatively healthy structure of the lining membrane. Doubtless, this could be accomplished by a systematic use of caustic agents, but a much more expeditious and safer procedure is to employ the curette, but as the uterine walls are frequently in a very softened condition, in consequence of the disease which has been present for such a lengthened period, the spoon curette, which has been so long in use, and which has on many occasions produced most disastrous effects, has in his practice during the past ten years been completely superseded by what some of his London friends have designated "the dredge curette," an idea of which will be obtained by referring to the accompanying woodcut. It is made in six different sizes, commencing with that of a No. 12 catheter, so that it is applicable to the various conditions which are met with in gynæcological practice. The curette is practically composed of four rods of steel, each of which has an edge which acts as a rime, this edge being on the right side of the rod, so that when it is turned from right to left it scrapes off the unhealthy tissue, which falls into the cage-like structure, and thus is withdrawn. By means of this curette the whole surface of the uterine canal can be attacked by one revolution. The mode of employing the curette is to commence with the small size, and introduce successively the larger sizes, until the operator is satisfied that all the redundant tissue has been removed; afterwards an application of iodized phenol is made to the whole extent of the

canal, and this may be repeated once or twice a week, as the case may require.

This method of treating endometritis requires to be continued for a shorter period than otherwise would be necessary were the curette not employed in the first instance.

Dr Bell has frequently been requested by his medical friends, both in this country and in America, to publish an account of this instrument, and this is his excuse for bringing it before the profession at large.

---

THE TREATMENT OF SCIATICA.—Dr. E. Valentine Gibson has published an analysis of one thousand cases of sciatica, with special reference to one hundred cases treated by acupuncture. The results on discharge from the hospital of one hundred consecutive cases of sciatica treated by acupuncture are as follows: 56 per cent. were cured, 32 per cent. were much improved, 10 per cent. were improved, and in 2 per cent. there was no improvement. The results are satisfactory, considering the chronic nature and the severity of the majority of the cases. All these were treated by acupuncture, and they all used the Buxton thermal water, which has such a great reputation for the absorption of inflammatory products. Acupuncture the author considers very valuable. Dr. Gowers states: "Simple acupuncture along the course of the nerve has been recommended; it gives temporary relief, as does any superficial pain, but the cases are very few in which it has a permanent effect." The writer believes that Dr. Gowers refers to cutaneous acupuncture of the nerve itself, which was the method employed in these cases. The patient can always tell when the nerve has been pierced by pain shooting down the leg. The needles ought not to be left in situ for any length of time, but withdrawn immediately, as unless this is done severe pain is often caused on their withdrawal, and no better results seem to follow this line of treatment. A single spear-pointed needle, two and a half inches long, is all that is required, as the depth of tissue to be pierced can be regulated according to the situation and the development of the patient. If the nerve is not pierced on the first introduction of the needle, it can be partially withdrawn and entered again at a somewhat different angle, and in this way the nerve may be pierced in several different places with but one cutaneous puncture. The nerve should be pierced about five times over the part where there is pain on pressure. The external popliteal nerve to the inner side of the biceps tendon may also be pierced if it is painful, and as it is not covered by muscle this can easily be done. There is often pains situated on the outer side of the leg, which in all cases is probably due to "referred pain." The musculo-cutaneous nerve may be punctured along the whole of its course, but being of small size and lying deeply it is naturally more difficult to pierce; but, even if the nerve is missed, the needle, passing in close proximity, must exert counter-irritation. These cases, without exception, he considers, were due to an inflammation of the nerve-sheath, this affecting primarily the adventitious tissue, and in more severe cases spreading into the interstitial tissues —a perineuritis and an interstitial neuritis respectively. This condition would account for the various symptoms, sensory and trophic, such as pain, tingling sensations, and the wasting of muscle supplied by the affected nerve, and also those supplied by the small sciatic, when the disease affects the lower portion of the sacral plexus. The author, in view of his lack of opportunities for *post mortem* examination, quotes from Dr. Gowers: "In most cases that have been examined, distinct evidence of neuritis has been found, chiefly involving the nerve-sheath, but extending, in some cases, into the interstitial tissue. In recent cases, there are small hæmorrhages, and in seven cases similar but slighter alterations in the interstitial tissue with secondary damage to the nerve-fibres. The signs of inflammation are most intense at the sciatic notch and opposite the middle of the thigh. They may be limited to one or both of these places, or they may be greatest there and extend in slighter degree over a considerable tract of nerve. Considering this to be the true pathology of sciatica, the treatment by acupuncture is a rational one, more especially in the earlier stages of the disease; but even in later stages puncturing the thickened nerve-sheath may promote absorption. If the nerve is pierced in a number of places over the inflamed area, where there is congestion of vessels and, consequently, exudation of serum and small-celled infiltration, it must be given an outlet, however small, to more or less of the exudation; also dilated blood-vessels must be pierced, thus relieving tension in two ways, and favoring the process of absorption. Rest is necessarily most essential, as it is in other inflammatory conditions. A rheumatic or gouty diathesis should be treated by appropriate remedies, as they are often a predisposing cause. The more chronic the sciatica the more difficult is the cure, as organization of the effused material must be a source of irritation and a nidus for subsequent relapses. In cases of secondary sciatica, due to rheumatoid arthritis of the hip-joint, a slight temporary relief only is obtained by acupuncture, as the source of irritation cannot be eliminated. Whether this irritation is due to pressure of the enlarged capsule of the joint on the nerve, or to the changes in the joints, giving rise to a neuritis of the nerve-fibres supplying the joint, and spreading from there to the trunk of the sciatic nerve, is a point requiring investigation."

In conclusion, if every case of sciatica, beginning acutely or subacutely, were to be treated by absolute rest, together with acupuncture, repeated, if necessary, at intervals of a few days, and at the same time any rheumatic or gouty tendency were treated by suitable remedies, the author does not think there would be the number of chronic and relapsing cases that one so often sees.—*Ther. Gaz.*

THYROID FEEDING IN SKIN DISEASES.—In view of the important results obtained by some observers by thyroid feeding in psoriasis and other dermatoses, the following brief notes of cases carefully observed as in-patients are of interest. The only case benefited was that of xeroderma; the results in three cases of psoriasis, and in one of eczema were quite negative.

CASE I.—B. B., aged 13. Infiltrated eczema of face and backs of hands, dating from infancy. On August 24th, 5 minims of brandy and Martin's thyroid extract was ordered to be taken daily, without any topical remedy, and was taken for nine days. The result was that the eczema was not so well. The fluid was continued for a time, and later changed to Burroughs and Wellcome's tabloids, two or three a day. The thyroid treatment was continued for two months, and pushed until symptoms of thyroidism were produced, but without any beneficial effect upon the disease.

CASE II.—M. L., aged 35. General acute psoriasis guttata. She had suffered from out breaks of the disease once or twice a year since the age of 16. On August 11th brandy and Martin's extract was ordered, 10 minims daily, afterwards increased to 15 minims; later, six tabloids a day were given. The rash was rapidly fading when treatment was begun, and this involution continued while under thyroid treatment; nothing approaching exfoliation, however, was seen. The case remained stationary for a time, and then a manifest increase of the spots took place on the chest. The thyroid treatment was continued till September 30th, when it was stopped, and the skin easily cleared of the disease by means of the usual remedies.

CASE III.—M. G., aged 12. Widely distributed chronic guttata psoriasis. Thyroid treatment was given for a month, but no difference in the disease was noticeable.

CASE IV.—T. W., aged 44. Xeroderma, with dry, silvery, fine desquamation. August 19th, thyroid extract (Brady and Martin), 10 minims daily. No other remedy. In twelve days the skin was softer and more scaly. On September 19th he left the hospital, showing very marked improvement. The skin was much less dry, and the scaliness was gone. Moreover, he asserts that he has perceptible perspiration while in bed.

The same treatment was adopted in three cases of psoriasis in out-patients (two chronic cases with indurated scales and one subacute), but in neither case did it lead to improvement. In one, T. R., the disease was in the erupting stage, and the thyroid treatment appeared to determine a large increase in the number of guttate lesions, which rapidly increased in size, became confluent and more scaly. The disorder under this treatment became much worse than before its adoption, when the patient was being treated with salicylic acid ointment.—Leslie Phillips, M.D. Brux., in *Br. Med. Jour.*

A TREATMENT GIVING A LOW DEATH-RATE IN CASES OF DIPHTHERIA IN HOSPITAL AND PRIVATE PRACTICE.—Dr. William A. Galloway, of Xenia, Ohio, read this paper. The paper embraced reports from private practice of physicians who had given the treatment faithful trial during the past three years, who had unhesitatingly commended its value and had all been able to show a death-rate below ten per cent. Immediately the nature of the disease was suspected, the writer gave a grain of calomel for each year of the patient's age up to eighteen, repeated the dose in from four to six hours, and met the action of the mercurial with copious hot water injections. This treatment was persisted in until the full action of the calomel on the liver and kidneys was obtained, relieving these two important excretory organs of the paretic condition caused by the absorption of the toxalbumin product of the Klebs Loeffler bacillus. Improvement in the patient's appearance was immediate when the mercurials acted freely. The quantity of foul-smelling, grass-green dejecta resulting was astounding. There was no fear of salivation, as under the most heroic use of mercurials no symptom of salivation had been observed by the writer or his friends. Internally, corrosive sublimate was given up to one eightieth of a grain, with full doses of tincture of chloride of iron and alcohol hourly at night and during the day. The topical treatment consisted of the use of peroxide of hydrogen for cleansing the throat, while as an escharotic, a solution of twelve grains of salicylic acid in a drachm of alcohol might be used twice a day by the physician only. It had proved of great value in the writer's hands. This escharotic was very powerful, and should be used carefully.—*Med. Rev.*

THE INDUCTION OF PREMATURE LABOR.—The Krause method is given by Dr. Boisliniere as follows: After the patient's bowels and bladder have been well evacuated, and the vagina thoroughly washed with warm water rendered antiseptic by a two-per-cent. solution of creolin or a five-per-cent. solution of carbolic acid, using no bichloride of mercury, which is always so dangerous, a No. 12 English bougie, not a catheter, as

this may carry germs, is smeared with carbolized oil. The woman is placed in Sims' semi-lateral position, a Sims' speculum being introduced, the anterior lip of the cervix is secured by a strong vulsellum, and the bougie is gently introduced through the cervix into the uterus, following the axis of the superior strait. The bougie is guided between the uterus and membranes to the depth of about eight inches. The vaginal end is then tied into a knot and left there. The vagina is stuffed very carefully with iodoform gauze, which acts also as a tampon, soliciting uterine contractions. In packing the vagina, avoid the course of the urethra, in order to prevent the necessity of catheterization. Then you can leave your patient, to be called, probably, within six or twenty-four hours. The uterine contractions will then have begun and the cervix found softened. Then the bougie should be withdrawn, the os dilated forcibly with the fingers, and, if still remaining contracted, and the case be very urgent, multiple incisions around the os, with a probe-pointed bistoury or scissors, should be made; the Barnes' bags, modified by McLean, are then to be used, and when sufficient dilatation is obtained, rupture the membranes and terminate rapidly the labor with the forceps on the head, or on the child's pelvis if it present by the breech. These operations should be performed quickly but prudently, as it is the child's life which is to be saved, the mother being in very little danger. Reliable statistics show that nine out of ten children, and twenty out of twenty-five women, are saved by this operation.—*Inter. Med. Mag.*

Conception During the Puerperal Period.—Dr. Brasseur relates the case of a woman twenty-two years of age, who was delivered on July 4th, 1892, of her first child. July 8th she practiced coitus, and was again delivered March 10th, 1893, of a healthy child. Calculating from the date of coitus, the second pregnancy lasted two hundred and forty-three days, that is, twenty-seven days less than the normal. This case has caused considerable discussion. Ovulation must have existed in the woman on the fourth day after the delivery, and it was necessarily quite independent of menstruation. Dr. Koenig, who actually observed the case, draws from it the following deductions: 1. A gestation period of two hundred and forty-three days after a fecundating coitus may produce a viable child. 2. The spermatozoa can live in the lochial secretions. 3. The functional activity of the ovaries is not completely suspended during pregnancy. The Graafian follicles so open that they may burst a very short time after delivery. 4. Ovulation and menstruation may occur independent of each other. 5. Among vigorous women, during the period immediately following confinement the uterine mucous membrane may undergo a rapid regeneration which renders possible the implantation of a fecundated ovule immediately after delivery.—*Gazette Médicale de Liége.*

Treatment of Erysipelas.—Dr. H. Koestor, *Wiener Mednziniche Presse*, describes a method of treating erysipelas which he has used in fifty cases during the last year, in the hospital of Gothenburg, Sweden. It consists in covering the affected portions and the surrounding skin with a thick layer of white vaseline, by means of a brush. A piece of linen is applied over the whole, in case of the face holes being cut for the mouth and eyes, and this fixed by means of a guaze bandage, with slight pressure. Twice a day new vaseline is painted on and the soaked piece of linen reapplied. The results were extremely good and from comparison with treatment of iodine, ichthyol, sublimate and lanoline, it gave fully as good results. The fever fell, in most cases, within two or three days; the sensation of pain and tension in the affected parts soon became less and recurrences were not observed more frequently than with other methods. In some cases the results were astonishing. Patients that one evening came under treatment with a fever of 40° C. were, the next morning, free from fever and the disease had ceased to extend. Though the result was not so striking in all cases the disease was generally limited to the areas first affected. This method is not only indicated in erysipelatous processes upon the skin but it may also be used in case the scalp is attacked. Here it can be employed without cutting the hair. The advantages are its simplicity, its lack of danger, and, for the patient, it is more agreeable than pencilling with iodine, ichthyol or sublimate-collodion, which often cause burning pains and quite severe symptoms of irritation.—*Med. and Surg. Rep.*

Hereditary Ataxia.—Dr. Sanger-Brown, of Chicago, minutely decribes twenty-one cases of hereditary ataxia, all belonging to a single family, and comprising four generations. The author is inclined—with a certain reserve—to consider these cases as hereditary ataxia, but also recognizes the fact that they differ in some important features from the type usually presented by this disease. These important deviations, which Ormerod and Bernhard also call attention to, are the following:—

1. In true hereditary ataxia (Friedreich's form), the disease usually presents itself between the ages of 12 and 18, while in the cases quoted by Brown it frequently manifests itself much later (for example at 45 years).

2. The majority of his patients were not of the female sex; it would appear that the disease is simply transmitted through their agency.

3. Brown frequently, though not invariably, observed ptosis, which is generally absent in Friedreich's form.

4. Amblyopia and amaurosis, which are never observed in Friedreich's disease, were constant and early symptoms in Brown's cases.

5. In the latter, the knee-jerk, which is absent in the former, was increased, foot-clonus being also present.

6. Brown did not observe-club foot nor scoliosis.

7. Pupil-reaction was deficient in Brown's patients—a fact not to be wondered at, since in the majority of cases there was optic atrophy; a symptom which does not occur in Friedriech's disease.

As Brown did not have occasion to make a post-mortem examination in a single case, nothing positive could be determined concerning the nature of this disease. Undoubtedly, however, it closely resembles the hereditary ataxia of Friedreich.—*Brain.*

ON THE TREATMENT OF MALARIA AND DIPHTHERIA BY METHYLENE BLUE.—In thirty cases of malaria with intolerance for quinine, the author has obtained good results by the internal employment of methylene blue. The conditions of the cases are that there were no counter indications against its use, such as nausea, vomiting or polyuria.

It need not be given in very large doses; for example, 30 grams two or three times per day. It should be associated with pv. myristica to prevent the appearance of hematuria. The dose of 50 grams per day for adults and 25 to 40 grams for children of four to eight years of age, suffices to obtain an action against the attack of malaria. Methylene blue does not prevent new attacks, but renders them less intense, the same as other anti-malarial remedies.

In fourteen cases of diphtheria, the author has obtained notable amelioration, from painting with methylene blue of 10 per cent. solution in water. This substance, he states, is preferred to chromic acid, carbolic acid water, chloride of zinc or sublimate, because it is not irritating to healthy tissues.

In saturating the false membranes, it probably prevents the secretion of toxic substances, and opposes itself to the propagation of the bacilli.

Ferreira, in *Bulletin General de Therapeutique*, gives twenty-one observations of infantile malaria treated with methylene blue. He concludes that methylene blue merits large employment in infantile malaria.—A. N. Kazem-Bek, in *Revue des Sciences Médicales.* — From *Vratch.* — *Jour. Am. Med. Assoc.*

TREATMENT OF CHOREA.—In a recent lecture, delivered at Charing Cross Hospital, Dr. John Abercrombie makes the following suggestions concerning the treatment of chorea in children: Unless the attack is very mild, absolute rest of mind and body is essential. Lessons must be given up and the child kept at home, lying down. Most severe attacks demand complete rest in a bed with padded sides. In very severe cases the child should be slung as in a hammock. Only in the lightest attacks should the patient feed himself. When mastication is difficult, minced meat, milk puddings, milk, beef-tea and cocoa should form the cheif articles of diet. Sleep is of great importance. If necessary, chloral, morphine, bromides, may be administered. Iron and arsenic are the best drugs, though drug treatment is of less importance than general management. Rheumatic manifestations or heart complications should be treated on general principles. In chronic cases douches to the spine, shampooing, massage, and gymnastics, are of value.—*Med. Rec.*

QUENCHING THE THIRST AFTER ABDOMINAL OPERATIONS.—Chas. W. Cathart, F. R. C. S., says: *Edinburg Med. Jour.*, It is a well known physiological fact that fluid is absorbed most rapidly from the rectum, and this has induced the writer to try rectal injections of water for those cases of intense thirst where the adminstration of water by the mouth is contra-indicated. Repeated injections were fouud to relieve thirst, while causing no unpleasant symptoms. This method of giving water is particularly recommended after abdominal operations.

---

## BUT HE CAN'T ADVERTISE.

A physician sits in his office chair,
And there broods on his face a look of care,
While he groans and wails and tears at his hair.

"Alas! and alas! and alack!" he cries,
"Surely fortune and fame would both arise
If Old Ethics would let me advertise."

At last a bright thought comes into his brain;
Says he: "I must try that old racket, 'tis plain;
It worked O. K. once and I'll work it again."

He wrote half a page on "The Evils of Pork,"
And the case of a man who swallowed a cork
And a spoon and a knife, but got stuck on a fork;

Told how he cured an imprudent fellow
Who swallowed entire a gingham umbrella,
And brought it intact from the patient's patella.

The newspapers all extended their thanks;
He opened accounts at the various banks;
He baited with Ethics and caught all the cranks.

—*Printer's Ink.*

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, JANUARY, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## TREATMENT OF ENLARGED CERVICAL GLANDS.

The cervical glands are prone to nndergo enlargement from a great variety of causes. The enlarged glands are bubonic in their nature, and the process varies from a simple increased functional activity, to the formation of enormous hyperplastic masses, and necrosis. The process is similar to what goes on in adenoid glands in all parts of the body, under irritation; witness, the mediastinal and mesenteric glands under tubercular infection, the glands of the groin under absorption of irritants from the penis, the solitary and agminated glands of the intestine from the invasion of the bacillus of enteric fever.

It may be said that any irritant, peripheral or central, usually the former, is efficient to set up the adenitis, and that the process of the inflammation is conservative in intention, the glands acting as sentinels to stay the progress of the poison, and prevent its general dissemination through the body.

The most important *infective* enlargements of the neck are either actinomycotic, glanderous, syphilitic, leprous, or tubercular. Of these, the leprous may be disregarded in this country, and the actinomycotic and glanderous forms are also happily so rare as to make it necessary only to mention that the actinomycotic, previous to secondary infection, is not attended by glandular enlargement at all.

So that the two, syphilitic and tuberculous infection, are left for consideration. The former, usually easily diagnosed by a reference to symptoms in other parts of the body, history, etc., are rarely suitable cases for other than internal, antisyphilitic treatment. Operation should be postponed until free pus is present, then a simple incision of the abscess should be made, and the walls scraped or cauterized.

This leaves only the tuberculous swellings so commonly seen in the cervical region, especially in children. Under the name *scrofula*, this tuberculous adenitis has long been recognized, but in the light of modern pathology these swellings should be, and now are usually, spoken of as tubercular. For in these cases we have to deal with a true tubercular infection, either primary or, as is more common, secondary. It should be remembered, that while this is especially a disease of early life, a distinct senile form is known. Sometimes the avenue of approach by which infection has taken place is not to be made out, but usually we can find the "port of entry" in some diseased tooth, ulcer of the mouth, nose, or pharynx, or through a diseased tonsil.

Other roads by which infection may take place are, suppurative disease of the middle ear, an eczema of the skin or scalp, or a purulent conjunctivitis.

Their course often tends to complete recovery, but, unfortunately, sometimes ulceration of the skin takes place, leaving unsightly scars, which are permanent. At other times the progress of the disease is of long duration, and active interference becomes a necessity, both on account of the condition present and of the danger of a tuberculous pleurisy, or pulmonary tuberculosis supervening.

In the matter of treatment, centuries of observation have shown that outside of what may be done by general constitutional measures, and by local applications in the way of promoting absorption of the *peri*-tubercular infiltration, thorough extirpation by the knife and spoon offers the best hope of being effectual. The guiding principle enunciated by Professor Allbutt comes in here with force, viz., "that whenever septic material is contained in the system we rest not until it is expelled, and its burrows laid open and disinfected."

Mr. Teale, in a recent address, has so clearly laid down the principle of the surgical treatment

of the disease that we append them. He looks upon the case from, first, the aesthetic aspect, as follows:

1. Whenever fluid—that is, pus—can be detected in connection with a diseased lymphatic gland, the operation should be done before the skin becomes red and thin—that is, before the skin has been spoiled by advancing suppuration. 2. When the diseased gland is subcutaneous—that is, not beneath the deep fascia or muscle, and has been completely removed, the least scar will result if neither stitches nor drainage tube be used, especially if it be possible to leave the wound uncovered by dressing and exposed to the air so that the edges may be drawn and glued together by drying lymph. 3. If the diseased gland be beneath the muscle or muscular fascia, then a drainage tube must be used, and the edges of the wound must be united by suture. For this purpose, probably horsehair or silkworm gut, well soaked in carbolic lotion, are the best sutures. The best drainage tube is the gilt spiral wire, especially as it may have to remain from two to eight or ten weeks, according to the depth of the wound, or the completeness of the removal of the gland. 4. Where many glands have to be removed, it is better, so far as may be, to remove them through a series of small incisions, and thereby to avoid very extensive ones.

Then from the pathological aspect he says:

1. That all sinuses and suppurating cavities should be thoroughly cleansed by means of scraper and lint, so as to leave a fresh surface free from granulation or decayed or decaying tissue, and that a drainage exit should be maintained until all the deep parts are healed.

2. It is essential to know, and to bear in mind, that the visible abscess, which has often been called and treated as a suppurating gland, is frequently but a subcutaneous reservoir of pus, the source of which (a degenerate gland) is not subcutaneous but subfascial, that is, under the deep cervical fascia, and often submuscular, under the sterno-mastoid, the communication between the two being a small opening in the deep fascia just large enough to admit a probe or director. This opening may easily be overlooked, and is not always easily found even when searched for, but it must be found, or the operation will be a failure.

3. It is mere trifling, and bad surgery simply to incise an abscess in the neck without searching for, and thoroughly eradicating the gland that is the starting point of the abscess. Therefore, no such abscess should be opened without putting the patient under ether, and being prepared with all necessary means for eradicating the diseased gland.

4. It sometimes happens that after the extirpation or evisceration of a gland, the finger detects in the wall of the capsular cavity the slight convex bulging of a contiguous gland. This should be pricked through the wall of the cavity, and so reached and extirpated or eviscerated. In this way in several instances I have emptied from one external opening a group of three or four glands, massed together and suppurating, or otherwise broken down.

5. What has been said hitherto concerns glands which are suppurating or obviously breaking down. As to caseous glands, the conclusions I have arrived at are as follows: When we have dealt with a broken down gland which has proved to be undergoing caseous degeneration, we may infer that any other enlarged glands then present or subsequently appearing, are becoming caseous also; therefore, it is my belief that it tends to promote better health of the patient if, in the absence of reason to the contrary, such glands are removed as soon as the surgeon is convinced that the enlargement is persistent and not merely transitory, without waiting for evidence of fluctuation or pus.

6. What shall be done with enlarged glands which are neither caseous nor suppurating, glands included in the terms lymphadenoma, hypertrophy, etc.? I am not clear as to what answer should be given, nor whether their removal is an advantage or otherwise. Probably this will have to remain an open question for some time yet.

7. In a very large number, indeed, in a majority of the instances of scrofulous neck which have come under my care, there was no evidence of any constitutional taint or weakness. The origin of the ailment was often clear and defined, bad drains in many instances, scarlet fever, mumps, etc. The cases were frequently isolated instances in families free from any tendency to constitutional disease, and health and perfect vigor were restored after the destruction of all degenerate or septic material.

## TEST FOR SUGAR.

Every physician has frequently to make examination for sugar in the urine. The qualitative test is the only one that the physician ordinarily undertakes, leaving the quantitative for specialists or analytical chemists. Professor Walter Haines, of Chicago, has brought before the profession a very simple means of making this qualitative test. 50 grains of sulphate of copper are dissolved in half an ounce of distilled water, to which half an ounce of glycerine is added, and the whole is then mixed with 5 ounces of liquor potassæ. In testing with this solution, a drachm is gently boiled, and the urine added drop by drop until 7 or 8 drops are added, *but no more.* If sugar be present, a copious yellow or yellowish red precipitate is thrown down, consisting of the usual anhydrous suboxide of copper.

The solution is said to be perfectly stable, a great advantage over the old Fehling's fluid, which, however, we opine is still used by a great many medical men. Its simplicity, and the readiness with which the necessary ingredients may be obtained, are attractive. It is sufficiently delicate, and so small a quantity of urine being needed, one is not apt to be misled, through reducing substances in the urine other than sugar.

There is a permanent Fehling's solution which we have used for years with much satisfaction and with the utmost confidence. Two solutions, A and B are necessary, and they are made as follows:

SOLUTION A.

℞—Cupri Sulph. (cryst.) . . . gr. 181.
Aq. dest. . . . . ℥ vj.—M.

SOLUTION B.

℞—Sal. Rochelle . . . . . gr. 728.
Sod. Causticæ . . . . gr. 400.
Aq. dest. . . . . āā ℥ vj.—M.

By mixing equal parts of solutions A and B, Fehling's solution is obtained. It may not be amiss to remind our readers that the mixture of urine and any copper test should not be boiled too long, 20 seconds being sufficient, otherwise slight precipitates may take place when no sugar is present.

## DANGER OF TRIVIAL WOUNDS.

It is obvious that many lives are lost each year in consequence of the lack of common sense respecting simple cuts or wounds of the hands or other parts. Cases are often seen recorded in the press, of inquests relating to persons who have died from blood poisoning arising from slight wounds or injuries of the hands.

The history of all these cases is practically the same. A man working at his trade receives a small cut on the hand. The trivial nature of the injury is such that it scarcely calls for notice; the small wound is left, so to speak, to take care of itself, during which time, in the majority of cases, it is exposed to all kinds of filth, and sources of infection. If nothing happens under such circumstances, and the wound heals, the result is due to good luck rather than to good management.

But we should do well to remember that the most trivial wound of the skin is liable to be followed by acute septciæmia, and may result fatally. It is in such cases as these that "prevention is better than cure." By thorough cleanliness the tendency of wounds to become infected can be effectually prevented; on the other hand, once let the septic process become inaugurated, and the surgeon is, as a rule, unable to do anything to stem its virulence.

Carelessness, perhaps, more than ignorance, is the cause of most people neglecting these trivial skin wounds, and it becomes the duty of the surgeon to educate those whom his words may influence in this respect, and teach them that as long as a wound, however insignificant, remains unhealed, there is a risk of blood poisoning setting in with its train of attendant miseries. "Cleanliness is next to godliness," and nowhere is this more apparent than in surgical practice; and nowhere else is the truth of the adage better exemplified.

## RECURRING GRIPPE.

The history of epidemics is almost uniform in the direction of their extending over several years, *I. N. Love, M.D.* Frequently the disease is endemic, becoming a definite part of every-day life, as witness diphtheria in many sections of the

country. La grippe is no exception. Appearing among us several years ago, it returned the second year in a form more virulent than the first, producing efforts far-reaching and uniformly demoralizing. The possibilities are that the coming winter and spring will develop enormous numbers of these cases; cases effected *do novo* by the germ —if there be any—and cases that have never recovered from previous attacks, with re-aroused disturbances due to the sudden and frequent changes of the weather. Feeling the importance of keeping open the excretory system of glands, and at the same time considering thoughtfully the rheumatic feature that accompanies these cases, no remedy would more promptly suggest itself to my mind than that of tongaline; a combination which naturally suggests antagonism to a locked-up condition of the glands, opposition to rheumatism, neuralgia, nervous headache and gout.

I commend it earnestly and emphatically to the practitioners of the country at large, to meet the conditions to which we have referred.

---

THE MALIGNANT TENDENCY OF CHRONIC MAMMARY TUMORS.—Dr. W. Henry Bennett, of St. George's Hospital, has written in the *Lancet; N. Y. Med. Jour.*, concerning the tendency of of apparently innocent tumors of the breast to take on a malignant character. He recites his experience in three cases and emphasizes the teaching of many generations of surgeous that the path of safety lies alone in an early removal. There are probably few families in the land that have not had an experience of the dangers of delay in the acceptance of the surgeon's reccommendation to free a patient from the perils of a chronic and so-called benign growth of the mammary gland.

One of Dr. Bennett's patients had a lump in the breast that was quiescent seven years. She discovered the hardness by accident, and, as is the custom with very many patients, kept the knowledge of it to herself for a long while. There was no increase of size, and there was no discomfort, but she was advised by her physician, to who she ultimately went for advice that the proper treatment was removal at once, or at least as soon as any inclination toward increase was observed. After about three years the woman was confined. The swelling than became sensitive, but no marke increase took place until three years later. A this time she continued reluctant to have an surgical interference. Finally Dr. Bennett w consulted, and the urgency of the situation wa found to require immediate operation.

Upon removal, the tumor was found to h with a well-defined capsule, and only attached t the gland at a single point. The external par of the tumor were clearly an adeno-fibroma, b in its centre lay a rounded mass of semi-gelatino material, to with the tendency of the once inn cent lump to grow was due. This softish cent mass was found to be of the nature of a spindl celled sarcoma, and it was at all points surrounde by a layer of tissue identical in structure wit the chronic and quiescent adeno-fibroma. At on point, however, the sarcoma approached very clos to the surface, so that the benign overlying tissu could hardly be discerned. The entire mamm was removed.

The author is decidedly of the opinion that th growth was originally wholly an adeno-fibrom and that the sarcomatous element had only recentl been superadded. The chronic tumor was a wea point in the breast, and it probably suffered a injury or irritation during the time of suckling and from that time began to grow heterelogously a conversion to malignancy being the result. I the patient had not been subject to this point o weakness, it may very well be doubted if sh would have had the sarcoma; and also if th tumor had been early removed, there would hav been no sarcoma. Dr. Bennett opposes the teach ing of some of the text-books that chronic mam mary tumors have a tendency to shrink an disappear. His observation is that these chroni adenomata or adeno-fibromato do not shrink, t say nothing of their complete disappearanc Chronic indurations sometimes disappear durin lactations, especially after a first parturition, bu these are, in his opinion not the true chroni tumor of the breast. In the latter, the tendenc after parturition is invariably in the direction o growing rather than shrinkage, and toward malig nancy rather than remain *in statu quo*. Th pathological probability is in favor of the les desirable result, in the case of these chronic an "benign" mammary growths. Their "benign element is almost invariably compassed in a mer chronicity, longer or shorter, wbere danger is neve absent.

MERCURIAL TREATMENT OF TABES DORSALIS.—Dinkler." Reviewed by V. Noorden, Munich. his interesting report details seventy-one cases of ıbes collected from Erb's clinic and from private ractice, all of which received mercurial treatment. *entralb. f. Chir.; Jour. Med. Assoc.* In fifty-ght cases there was improvement of one or more the symptoms, while eleven seemed to be aggra-ıted rather than benefited thereby, especially vo cases in which the symptoms became decid-lly worse. In these last two, there were indica-ons of brain lesions, involving the arteries and eninges.

The results emphasize the importance of the ournier-Erb's anti-syphilitic, mercurialtrea tment tabes dorsalis; at all events it disproves the jections made, as to its bad results.

In the fifty-eight improved cases mentioned ove, the following favorable changes were noted, z.: the sensory disturbances were improved, as anifested by the entire disappearance of the feel-g of constriction or girdling pains, sense of cold, d of the tingling and creeping sensations, etc., by lessening of their intensity or lengthening the intervals. The lancinating pains became ilder or entirely disappeared.

Improvement was often noticeable in many of e other sensory disturbances. Zones of hyper-thesia and of diminished sensibility, became ıaller or disappeared entirely. Improvement of nsibility was quite rapid. As regards co-ordina-n and motor disturbances, there was apparent minution and complete disappearance of the axy, which seemed to run a course quite inde-ndent of the sensory symptoms.

More favorable still were the effects on the otor disturbances, from that of slight fatigue to igh grade of paresis.

In regard to the tendon reflexes, the symptoms re either temporary, or permanent improvement lowed.

The atrophy of the optic nerves was favorably ected, as were also the functions of bowels, ıdder and sexual organs.

Finally, it should be emphasized that the mer-cial treatment of tabes, as well as in cases of ondary syphilis, seems to lessen the destructive tabolism and benefits and increases nutrition.

SALOPHEN IN ACUTE RHEUMATISM.—Harden-g, *Boston Med. and Surg. Jour.*, reports ten cases acute rheumatism treated with salophen, and sums up his observations as follows: "A fifteen-grain dose every three or four hours for twenty-four hours is frequently sufficient. In no case was there observed any toxic affect or gastric or aural irritation. The average febrile period was but six days, and the average total stay in the hospital but ten days. The pain was quickly relieved and no cardiac complications followed." These conclusions are in all respects in accord with the observations of Caminer and Froehlich and the latter reports of Oswald and Koch, all of whom found in the pleasanter taste of the drug an advantage over the salicylates. In cephalalgia, pleurodynia, and some cases of trigeminal neuralgia marked relief was obtained from small doses. In the severer cases of acute rheumatism, however, the German observers looked upon salicylate of sodium as still the best remedy. Drasche and Hoischmann both report cases of the elimination of the drug by the skin in a crystailine form exactly like the crystals of the original powder. If this is true, it throws doubt upon the supposed splitting up of salophen into a salicylate and a phenol in the system. The remedy is best given in powder.

THE USE OF CHLOROBROM IN INSOMNIA.—Dr. Lothian writes to the *Lancet:* In a case of delirium tremens which I came across recently I found the usual great difficulty in inducing sleep. I tried, firstly, bromide of potassium in 40 grain doses, combined with 5-grain doses of chloral, without the slightest appreciable effect. I increased the dose of both drugs, and again without effect. Sulphonal in 60-grain doses was tried; then I gave hypodermic injections of morphia (six minims). This certainly soothed the patient, but was of no use as far as the sleeplessness was concerned. The case was now assuming a serious aspect, and in my difficulty I tried chlorobrom. I gave the patient an ounce and a half, and in half an hour he had fallen asleep. He slept soundly for two hours, and when he awoke I was again sent for and administered one tablespoonful more. In the course of a very short time he again fell asleep, and slept soundly for five hours. When he awoke the delirium had almost entirely passed away. The next day chlorobrom was again administered, not as a hypnotic, but simply to soothe the nervous system, with most satisfactory

results. I think this solution is not widely enough know in the profession; but I feel certain that in cases of insomnia and delirium tremens, as a hypnotic agent, it stands pre-eminent.

TREATMENT OF CANCER OF THE STOMACH.—Dr. Brissaud says, *All. Med. Zeit.*, that it has been known for a long time that solutions of chloride of sodium possess curative properties in epitheliomata of the mouth, and certain cancroids of the nose. On the ground of these observations, the author has employed this treatment in cases of cancer of the stomach. Owing to the limited solubility of the chloride of potassium and its comparative poisonous character the sodium salt was selected, which is less toxic and can be injected without risk in quite large doses. The chloride of sodium dissolves in three parts of water, while the potassium requires twenty parts of water for solution. As regards the dosage, 8–16 grammes were given daily. As the results of this treatment the pains were relieved, and some of the gastric symptoms dissppeared, sometimes so permanently, that it seemed almost as if a cure had been effected.

SUDDEN DEATH TO FLIES. — "Come inside a minute," said a Fourth Avenue dealer in pianos yesterday afternoon. "I have discovered the greatest fly-trap on earth and I want to show it to you." *Scientific Am.* He led the way to an instrument at the rear of the store, on which was a newspaper. On the paper had been placed a bunch of sweet peas. At least a thousand dead flies were lying on the paper in the immediate vicinity of the bunch of flowers. "I threw these here by chance," he continued, "and in about ten minutes I happened to notice that every fly that alighted on the flowers died in a very short time." Even as he spoke a number of the insects which had stopped to suck the deadly sweet had toppled over dead. They alighted with their usual buzz, stopped momentarily, quivered in their legs, flapped their wings weakly several times, and then gave up the ghost.

TREATMENT OF HYDROCELE.—Neumann, *Fort. der Med.; Br. Med. Jour.*, advocates a method of treating hydrocele which in his hands has been most successful. Under strict antiseptic precautions, a trocar and cannula are inserted; the latter is pushed home, and the fluid having been allowe to escape, the cannula is allowed to remain for t days, the whole being wrapped in cotton woo After removing the cannula, a cooling lotion applied, and adhesions of the walls is complete in seven to nine days, without inflammation or su puration. Neumann believes that, owing to th presence of the cannula and the altered condition of pressure produced, a slight exudation of leuc cytes takes place, leading to the formation of fibrinogenous ferment and the occlusion of the sa The advantages lie in the small amount of tim required, the little inconvenience caused, and th certainty of cure.—Theodor, *Archiv f. Kinderheil kunde*, 17, 1-2, 1893, records 36 successive case of infantile hydrocele which he treated by empty ing the sac with a Pravaz syringe, exerting sligh pressure on the scrotum and allowing the fluid t escape through the needle. The author then in jects two syringefuls of a 1 in 5,000 solution o perchloride of mercury, withdraws the needle, an closes the aperture with plaster. On the next da a slight swelling will be found, but without red ness or pain. No recurrence took place in thes cases, though in a control series of 36 childre previously treated by the older methods, the usua percentages of reappearance were observed. Th treatment has the advantage of being painless always applicable, and apparently the effect of th operation is permanent. The ages of the childre varied from two weeks to eight years.

A MECHANICAL TREATMENT OF ERYSIPELAS—Dietz, *Therap. Monatash.*, *Br Med. Jour.*, has trie the medical treatment of erysipelas advocated b Kroell. He surrounded the arm (which was th seat of the affection) with a narrow strip of adhe sive plaster at a distance of one-half centimetr from the reddened area. On the following da after the removal of the plaster, the œdema wa seen to cease abruptly at its lower border, ex cepting on the inner surface of the arm, where a the situation of the vessels, etc., the plaster ha purposely not been applied so tightly, and where the erysipelas had crept up the breadth of two fingers towards the axilla. A fresh band wa therefore fixed more tightly immediately abov the point, supplemented on the following day b a second one immediately above the former, th possibility of some loosening being taken into co

sideration. Three days later the plaster was removed, the disease having presumably been kept in bounds thereby, and recovery having taken place. The author confidently recommends this procedure in similar suitable cases.

THE ERECT POSTURE FOR GYNÆCOLOGICAL EXAMINATION.—In a paper contributed by Dr. William B. Dewees, of Salina, Kan., *Med. Rec.* the author says: Digital examination per vaginam, with the patient in the erect posture, affords one of the most positive means for diagnosis in gynæcology. It is a well-established fact that respiration, the various movements and attitudes of the body, as well as pathological conditions, change the condition and environments of the viscera. Thus the importance of posturing the patient in making physical examinations in gynecic practice becomes evident, as most of the symptoms of diseases of the intra-pelvic organs are more marked, and very many only manifested, when the patient is standing; while certain conditions of descent, prolapse, or displacement may entirely disappear or change, when the pressure or the superincumbent weight of the abdominal viscera is removed by the patient being placed in the dorsal, semi-prone, genu-pectoral, or high pelvic positions; therefore the erect posture is of paramount importance as an aid in diagnosis in this field of labor. The author emphasized the advantage and necessity of digital examination in the erect posture, more particularly in examinations undertaken for a cure in women of, 1st, displacement of the uterus; 2nd, vesical and rectal disorders; 3rd, lack of perineal and vaginal support; 4th, ovarian and tubal disorders; 5th, abdominal and pelvic tumors; and 6th, differentiation between abdominal tumors and pregnancy.

[Common sense, we have practised it for years. —ED.]

LONG-CONTINUED RECTAL ALIMENTATION.—A case of successful, long-continued rectal alimentation is reported in the care of Dr. Maragliano, which certainly meets the objection so often raised, that no real nourishment is obtained from rectal feeding. The patient, a woman, had circumscribed peritonitis from perforated gastric ulcer. For ninety-four days she was kept continuously upon exclusively rectal feeding. In this time the patient lost but 2,700 grammes in weight. The diet consisted of the following enemata:

℞—Lean beef, . . . . 300 grammes.
Pancreas, . . . . . 150 grammes.

Mix well, rub up in a mortar, and strain; then add:

Water, q. s.,
Carbonate of soda, . . 5 grammes.
Fresh ox-gall, . . . . 25 grammes.

This suffices for four enemata a day when diluted with a sufficient amount of tepid water.

AN EARLY SIGN OF PNEUMONIA.—Morison, *Lancet*, in several cases presenting the general symptoms of pneumonia in the absence of the ordinary physical signs, has observed a jerky expiration over a limited area, in which he subsequently found developed the usual signs of pneumonia. This jerky expiration is believed to be the first physical sign developed, and can be heard soon, if not immediately, after the rigor, before dulness or crepitation appears. The sign is more distinct in children, but has also been observed in adults. It is suggested that the phenomenon may be due either to the primary congestion interfering with the elasticity of the lung or to the better propagation of the heart-beats through a more readily conducting medium than the healthy lung.

SANTONIN AS AN EMMENAGOGUE.—Dr. Bergey writes in the *Therapist*: I was called to see Mrs. A. B., aged thirty-six years, and found her in great agony from uterine colic. The pains had lasted for several days, and gradually assumed a graver form, notwithstanding the various domestic remedies which she had employed. Hot water bags were applied and frequently changed. Hot drinks were freely administered and frequently repeated, but without affording any relief. The pain was so severe that it was necessary to resort to large doses of morphine to get it under control. In the meantime, a ten-grain dose of santonin was administered. The menstrual flow became fully established by the second day after administering the santonin, and the patient rapidly recovered. To avoid such crises at future periods, I prescribed several ten-grain powders of santonin, one to be taken at night, at the first approach of the menstrual molimen. In this manner the suffering

has been warded off at each subsequent period, and menstruation established each time without any disturbance.

WHY GENERAL PRACTITIONERS HESITATE TO TAKE PATIENTS TO SPECIALISTS.—Dr. Burke says in *Kansas Med. Index:* I took a little patient to a specialist on skin disease, who examined the child, meantime addressing all his remarks to the mother, and when he was through handed her the two prescriptions he wrote. I was wholly ignored. No man should be recognized as a member of our profession who is not first of all a *gentleman;* but some cannot be that because in spite of their medical training they have not been able to eradicate the boorish element of their nature.

MIXTURE FOR FREQUENT EPISTAXIS. — Dr. A. Harkin, *La Semaine Médicale*, recommends the following mixture in epistaxis recurring frequently :—

| | | |
|---|---|---|
| ℞—Chlorate of potash, | . . . | gms. 18. |
| Perchloride of iron, | . . . | gms. 3. |
| Water, | . . . . . | gms. 300. |

Two tablespoonfuls of this solution three times a day.

ONE of the attending physicians at the World's Fair Hospital, *Coll. and Clin. Rec.*, who has a large private practice, reports that he uses chloralamid largely in sedative doses (3 to 5 grains) for nervously exhausted patients, and he claims that it gives magical relief in sick (nervous) headaches, physical exhaustion, and kindred conditions brought about by excitement, optical strain, heat, and unusual exercise.

GOLDEN SEAL IN VOMITING OF PREGNANCY. — Fellorow insists, *Therap. Monats*, that fluid extract ministered four times daily, is an excellent and *Hydrastis Canadensis* in 20-minim doses, almost effective remedy for control of the obstinate vomiting of pregnancy.

FOR UNDUE SWEATING. — Olszewski, *Centrabl. f. d. ges. Ther.*, recommends fluid extract of hydrastis canadensis. In mild cases a single dose of from 20 to 30 drops at night suffices; in more aggravated, from 25 to 30 drops, three times a day, for several successive days will be required.

LOCAL ANÆSTHESIA.—A local anæsthetic recommended by Dobisch, *Prag. Med. Woch.*:—

| | | |
|---|---|---|
| ℞—Chloroform, | . . . . . | parts 10. |
| Ætheris, | . . . . . | " 15. |
| Menthol, | . . . . . | " 1. |

This mixture is applied by means of Richardson's spray, and, within a minute, an anæsthesia is obtained which lasts from four to six minutes.

## Books and Pamphlets.

FUNK & WAGNALLS' NEW STANDARD DICTIONARY. Volume I. of the two-volume edition of the Funk & Wagnalls Standard Dictionary of the English language was issued on December 16th. This volume has been four years in making; two hundred and thirty-eight editors and specialists have been employed upon it; and the cash outlay has been about a half million dollars. The advance orders for the work mount up into the tens of thousands.

The vocabulary of the "Standard" is extraordinarily rich and full, that of no other dictionary nearly equalling it, although great care was taken to throw out all useless words. The full number of words and terms in these dictionaries for the entire alphabet is as follows: *Stormonth*, 50,000; *Worcester*, 105,000; *Webster* (International), 125,000; *Century* (six volumes, complete), 225,000; "Standard," 300,000.

DUANE'S STUDENTS' DICTIONARY OF MEDICINE. The Students' Dictionary of Medicine and the Allied Sciences. Comprising the Pronounciation, Derivation and Full Explanation of Medical Terms, together with much collateral descriptive matter, numerous tables. etc. By Alexander Duane, M.D,, Assistant Surgeon to the New York Ophthalmic and Aural Institute; Reviser of Medical Terms for Webster's International Dictionary. In one square octavo volume of 658 pages. Cloth $4.25; half leather, $4.50; full sheep, $5.00. Philadelphia: Lea Brothers & Co. 1893. Toronto: Carveth & Co.

The author has attempted, and we think succeeded, in giving students sufficient information, concerning every word they will meet with in acquiring their professional education. The work is the best Student's Dictionary we have seen. It is strong on pronounciation and on derivation, two very important points.

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### FLATFOOT: ITS DIAGNOSIS AND TREATMENT.


BY W. W. BREMNER, M.D.,

Late Assistant Surgeon to New York Hospital for Ruptured and Crippled. Orthopædic Surgeon to the Toronto Infants' Home.


Flatfoot is a breaking down of the normal arch of the foot, more or less pronounced according to the severity of the case. It may be either congenital or acquired.

The acquired form is that which is most frequently seen; it may be caused by rickets, prolonged standing (static), paralysis or injury.

This affection is much more common than is usually supposed, about two hundred cases are seen annually at the New York Hospital for the Ruptured and Crippled, and is often diagnosed as rheumatism or chronic sprain, and treated with various liniments and lotions, of course, without beneficial effect. Anatomically it is a dislocation outward, more or less pronounced, of the anterior part of the foot at the medio-tarsal joint.

In a normal foot, a line drawn down the front of the tibia falls on the second toe. In flatfoot, this line falls within the great toe. The ligaments connecting the os calcis, astragalus and scaphoid are put on the stretch, also the tendons of the tibialis anticus and posticus. In very severe cases the scaphoid is almost completely dislocated outward.

*Symptoms.*—There are certain symptoms common to almost every case of flatfoot. The patient complains of weakness and discomfort in walking, of great fatigue, and often intense pain in the foot after prolonged standing. The gait is awkward, and often there is a limp. The feet are generally everted in walking and standing. On examination, we find that the front of the foot is turned out in relation to the leg. There is often swelling of the dorsum of the foot, and in severe cases great resistance to abduction and extension; (this symptom may be absent in commencing cases, and yet there may be very great pain), in fact, all the motions of the foot and ankle are often more or less restricted. The average amount of flexion present in the ankle-joint is about 70°, and of extension 140°. Adduction can usually be made until the sole of the foot makes an angle with the floor of from 40° to 50°.

Patients should be examined carefully as to these motions. It will usually be found that they are unable to raise the inner border of the foot at all, while the adductors, the peronei, and extensor longus digitorum are in a state of chronic spasm.

These patent signs are only present in the more severe cases, but in every case there are points of tenderness, which are characteristic of this disease. There is one over the astragalo-scaphoid articulation at the inner border of the foot. One in front of the internal malleolus, and also at the base of the first and fifth metatarsal bones. The one at the astragalo-scaphoid is always present. There are other painful points not so constantly present; one is in front of the external malleolus. These points are often extremely sensitive to either pressure or weight bearing. In some acute cases there is heat, redness and swelling, closely simulating rheumatism; the pain is often most severe in cases where there is very little actual flattening of the arch, while in some advanced cases of long standing pain may be almost absent. It will be seen from the foregoing description, that the muscular balance of the foot is lost. The ad ductor muscles on which the strength and elasticity of the foot chiefly depend, being strained and their power lost.

*Treatment.*—The treatment must be directed to overcome the state of affairs we find present. When there is not much deformity and spasm present, it is often sufficient to bandage the foot well, and to use a light steel foot plate, made from a plaster cast, taken while the foot is held in as nearly a correct position as possible. This is the method recommended by Dr. Whitman, of New York, whom I had the pleasure of assisting in many of these cases. Where there is considerable deformity and spasm it is necessary to etherizer the patient and replace the bones in

*Read before the Brant County Medical Association.

their proper position. This is best done by forcibly extending and adducting the foot. The heel and toes are both turned inward the foot forced into a position of extreme equino-varus. There is often a great deal of crackling of adhesions during the operation. At times it requires much force to place the foot in its new position, and this is best obtained by placing the patient on a couch and bringing the affected foot between the operator's legs and using the knee as a fulcrum over which to press the foot. By this means the foot is over-corrected, the contracted muscles and ligaments are put on the stretch, and those that have been strained and weakened given complete rest and an opportunity of regaining their lost power and tone.

After the operation the foot should be put up in this over-corrected position in a well-fitting plaster case, and retained there from one to three weeks, the patient being allowed to walk about with a cane. At the end of one week the bandages should be removed and plaster casts taken of the foot, the bandages should then be reapplied while the necessary plates are being made. These are made from thin hammered steel, and extend from the ball of the great toe to the inner tuberosity of the os calcis in the sole of the foot, and from half an inch above the outer border of the foot to the tuberosity of the scaphoid.

At the end of two or three weeks the plaster is removed, then careful massage and bandaging employed for a few days and the plate applied. It is worn in an ordinary shoe, but it is better to get some common sense boot with the natural inward curve of the foot preserved. In addition, the inner side of the shoe may be built up $\frac{1}{4}$ inch after the method of Thomas of Liverpool. In the after treatment it is well to see the patient every day for a considerable time, and to gently but firmly put the foot into the portion of adduction so as to fully stretch the abductor muscles. This should be continued until all stiffness and spasm are gone.

The patient should be instructed to take the following exercises every night and morning:

1. To adduct and invent the feet several times-assisting those motions with the hands if necessary.

2. To raise the body on the bare toes twenty to thirty times with the feet parallel to one another. Lastly, and perhaps most important of all, he should be taught to walk correctly, that is with the feet parallel to one another, so that the weight of the body is lifted over the toes at every step; in this way the weak muscles are exercised and strengthened.

In very severe cases it may be necessary to use an upright leg support in addition to the steel sole plate with a leather belt to support the inner malleolus.

## THE FAILURES AND SUCCESSES OF BROMOFORM IN THE TREATMENT OF WHOOPING-COUGH.

BY J. T. DUNCAN, M.D., TORONTO.

*Mr. President and Gentlemen,*—In estimating the value of any new theory, and especially any new drug, full weight must be given to those cases in which it may be said to be a failure, as well as those in which it is a success.

Now, although bromoform in one sense may not be really "new," (for it has been before the profession for at least two years), still it is not improper to use that term in reference to it, for it has not yet come into general use.

In discussing it, then, we shall first carefully examine its reported failures, then look briefly at its successes, afterwards endeavoring to sum up the evidence, and decide whether it is a genuine addition to the armamentarium of the physician—especially with reference to the treatment of whooping-cough—or not.

Advocates claim that it lessens paroxysms in number and severity, relieves or abolishes vomiting, promotes sleep, increases the appetite, reduces the danger of complications, cuts short the disease, and, is indeed, according to some, a specific.

I. *Unfavorable reports.*—Dr. J. Cassel (*Medical Annual*, 1893), has treated 40 cases. He says there is not much to claim for it as shortening the duration of the disease, but it lessens the number of paroxysms in the day. It will not take the place of other drugs. Large doses are poisonous.

Dr. Ullmann states that the cases which improved under treatment by bromoform showed themselves equally amenable to other and different remedies, and the cases of a worse type were not checked by either drug. The length of the illness was as little shortened as ever. Complications of every sort occurred, and the course of the disease

was not influenced. The mortality was not increased. Bromoform, perhaps, as a narcotic, somewhat unfavorably influenced the general condition of the younger children.

The above reports are those found in the *Medical Annual* for 1893.

In Sajous' *Annual of Medical Sciences* I have found only one unfavorable reference in regard to the use of this drug.

I come now to the personal experience of some members of this Association in regard to it.

Dr. Burns, of College Street, who tried it in one case, stated that he did not consider it superior in its effects to a mixture which he had been in the habit of using, consisting principally of bromide and chloroform; and Dr. Clelland, of Queen Street, who, last summer, treated one case by this drug, had rather discouraging results. In my own experience I have had what may be spoken of as initial failures, that is to say, the drug has done no apparent good at first. These will be referred to later on.

In speaking of the failures or disadvantages of the drug, cases of poisoning must be referred to. Of these I have only found the following recorded :—

Case I—Boy æt. 7 years. This boy was under treatment for pertussis by bromoform, the following being the mixture :—

℞.—Bromoform, . . . . . ʒi.
Aquæ, . . . . . ℥iv.

S.—Shake well, and take ʒi. every two hours.

The last dose in the bottle was the poisonous one, and was stated to contain x. to xv. mins. of bromoform. He recovered by hypodermic injections of digitaline and ether sulph. The disease was not shortened, nor the severity of the attack lessened.

Case II—Girl, æt. 2½ years. She took at least ʒjss. of pure bromoform. She also recovered under similar treatment. (The above cases are reported in the *Ontario Medical Journal* for April, 1893.)

E. Sachs (Sajous' *Annual*) reports child, æt. 4, took 23 grains (minims?) Collapse took place. She recovered by means of hypodermics of ether and tepid baths.

These are the unfavorable reports in regard to this drug.

II. *Successes.*—The last *Annual of the Medical Sciences* (Sajous'), contains a report from Dr. Krieger, who treated nine cases with, he says, "great success."

The same publication refers to Nauwelær's experience, who regards it as a specific, but considers it dangerous. Dr. Earle, of Chicago, has treated eight or ten cases with good results.

Schippers says he has had good results with proper doses.

Squibbs' Ephemeris of Materia Medica (quoted in the *Canadian Practitioner*,) says, "It still has an increasing use in the treatment of pertussis, with comparatively few failures. It apparently simply aborts the paroxysms, and probably reduces the number somewhat, but has little other effect on the regular course and duration of the disease."

Stepp has treated 100 cases, Lowenthal 100, Newmann 25, and Schippers 250, all with great success. These latter cases were, however, referred to last year.

Dr. Forfar, of this city, reports great success with bromoform in the treatment of pertussis, but, as he combined this treatment with the administration of phenacetine, the record is not directly to the point.

Dr. Clelland, also of this city, reports this year, "I used bromoform in seven cases of pertussis during the past winter. I was surprised and pleased at its effects. The change and improvement, in most of the cases, was very rapid. I would use it now in every case. It is in advance of any treatment I had previously used."

Dr. Gilpin, of Brechin, Ont., had a good opportunity of observing the effects of this drug last winter. The epidemic which occurred in his practice was a severe one. As to the results, I quote from a letter received May 22nd. He says, "I have had at least 25 cases. I found 'bromoform' to benefit in every case. . . . . I don't think it cut short the disease to any marked extent, but where I had the patient under treatment from the first, it cut short the paroxysms in a marked degree; in every case they slept better right from the first dose. . . . . I had no bad symptoms in any of my cases." The letter concludes with the statement: "I found bromoform a great boon."

My own experience this summer has been limited to a few cases, only two of which were severe. And as these cases throw light, in my opinion, on

some reported cases of failure, I will speak of one of them in some detail.

Boy, æt. 5 years, had been coughing a week before I saw him. I ordered three drops of bromoform, three times a day. This was April 13th.

April 15th. No improvement. Gave chloral and bromide mixture.

April 19th. A diagnosis of whooping-cough was now definitely made. The mixture of chloral and bromide had not done any good. Therefore I again ordered bromoform, increasing the dose to ♏ vj., three times a day.

April 23rd. Little improvement. Ordered ♏ x., or even xij.

From the time of getting the larger dose, the boy improved. Up to the 25th April the case was a severe one. Hourly paroxysms at night, vomiting distressing; no appetite, the child evidently failing; the mother anxious and alarmed.

But on calling, the second day after he began with the larger dose, the mother expressed herself as delighted. The whole aspect of the case had changed. Paroxysms were reduced in number, less severe in character; vomiting much lessened, appetite getting really good. All the mother's anxiety had disappeared. Ordered to continue ♏ xij.

May 17th. Patient has no cough during the day now, coughs about twice at night; does not vomit at all, is very hearty. Mother wants to know if he may go to school, as he is so well.

The other case, being very similar both in severity and course, need not be particularly referred to. He made no improvement until the proper dose was given.

In order to decide the question intelligently, Mr. President, I have thus placed before you all the evidence, both for and against, which I have been able to obtain.

Anyone dispassionately perusing that evidence, would say that the testimony is largely in favor of this drug as a most important assistant in the treatment of pertussis.

While so many practitioners have been successful with the drug, however, it undoubtedly has failed in the hands of a few. Granting that its use, by some practitioners, has been void of benefit, these negative results cannot be held to invalidate so many positive successes. But can even these negative results be reasonably accounted for? Some of them probably can be by the insufficiency of dose.

I will ask you to look for a moment again at the case I have just reported. That patient, beginning with a three minim dose, as I supposed, did not improve till it was increased to xij., apparently. I say apparently, for the patient, although getting x. to xij. *drops*, only was really receiving about ♏ iv., the explanation of this anomaly being, that the medicine had been given by the dropper, and the drops were so small that it took from two to three drops to make one minim.

As the original method of giving this drug was simply to drop the dose into a teaspoonful of water, no doubt some have failed to give a sufficient dose, from overlooking the fact that a drop does not by any means represent a minim.

As further proof that insufficiency of dose accounts for the failure of the drug, other records might be given if time allowed.

On discovering, in my own case, the possible error of the older method of administration, I adopted and modified a formula which was published in the *Canadian Practitioner*, of which glycerine is the basis, as follows:—

| | | |
|---|---|---|
| ℞—Bromoform, | . . . . . | fl. ʒ j. |
| Alcohol, | | |
| Tr. card. co., | . . . . āā | " ʒ ij. |
| Glycerine, | . . . . . | " ʒ xij. |

Given thus, I found minims iv. equal in effect to the 12 drops previously administered. Although we can thus be sure of the proper dose being given, there is the disadvantage that children do not take it as readily as when dropped into water.

*Dosage.*—Schippers gives the standard doses, thus:—

| | | |
|---|---|---|
| Six to twelve months | . . minims | ij. |
| One to two years | . . . . . " | iij. |
| Two to three years | . . . . " | iv. |
| Three to four years | . . . " | v. |
| Four to seven years | . . . " | vj. to vij. |

Three times a day.

These doses may be more easily remembered by using minim j. for each year of the child's age, cautiously increasing if not at first successful.

*Dangers.*—The method of administration must be mentioned. In one case of poisoning, the drug had been ordered simply with water. Bromoform is not soluble in water, and sinks to the bottom almost "like quicksilver," as stated by a corres-

pondent. Now, no matter how well such a mixture is shaken, the bulk of the bromoform would remain till the last dose. In the case referred to, the results which might have been anticipated did actually occur, viz.: no improvement in the disease, and a poisonous last dose. If given in water, the safer way is to drop the dose into a teaspoonful at the time of administration.

Glycerine is a much better solvent, but even some glycerine mixtures require thorough shaking before using.

*Poisoning.*—The fatal dose has not yet, so far as I know, been determined. Poisonous symptoms have, however, been observed after doses of 23 grains (minims?), and a drachm and a-half. The latter dose was taken by a girl of $2\frac{1}{2}$ years. She, as well as all the others, recovered, and, apparently, without any unfortunate sequelæ.

In endeavoring to arrive at the truth of this question, Mr. President, I shall simply sum up briefly, and without recapitulating the evidence, by stating that bromoform—

*(a)* Reduces the number, and lessens the severity of the paroxysms.

*(b)* Rapidly relieves the vomiting.

*(c)* By thus quieting the stomach, it increases the digestive powers.

*(d)* Gives comfortable rest, and, in the doses stated, appears to be a perfectly harmless drug.

On the other hand, I do not think it is yet proved to be able to shorten the duration of an attack, and, as it acts only as an antispasmodic, not as an antiseptic, it cannot properly be spoken of as a specific for pertussis.

## CEREBELLAR HEREDO-ATAXIA.

BY DOCTOR PIERRE MARIE.

Translated from the French by D. Campbell Meyers, M.D., Toronto.

*(Concluded from January No.)*

In regard to the muscular sense (we have already seen that Romberg's sign was usually but little marked or absent) opinions differ somewhat; the majority of authors consider it if not intact at least scarcely altered; but Klippel and Durante state that in their three cases it was very notably deranged. The same difficulty of interpretation is met with when one seeks to explain the mechanism of the motor troubles in typical Friedreich's disease.

The plantar reflexes are generally preserved, rarely exaggerated, sometimes abolished.

As for the organs of the special senses, apart from the eye, I have nothing notable to add, except in the three cases of Klippel and Durante, a diminution in the acuteness of the hearing, in one case of the same authors an impairment of the olfactory sense on the left side; in another case some slight changes in the taste.

In regard to the vision it is quite different. We must here consider in detail the muscular apparatus, the movements of the pupils and the vision properly so-called.

In two cases of Sanger Brown (IX and XVIII) there existed a quite pronounced *ptosis*, which, however, was incomplete, because, by an effort, at least in the second of these cases, the patient was still able to raise the eyelids, and uncover the sclerotic above the cornea when the eyes were directed horizontally. This incomplete ptosis gave to the patient a singular expression quite analogous to that induced by an intense emotion. In the cases of Klippel and Durante there was no question of ptosis, the eyes are described as wide open, but they note "the astonished appearance" of the facies.

In the greater number of cases one observes, not a true nystagmus such as is frequently seen in disseminated sclerosis, but *nystagmiform jerkings* which are present when the eyes are moved to an unusual degree in any direction. This is, however, a symptom which belongs equally to typical Friedreich's disease. A large number of cases have presented, in a more or less pronounced manner, a *paralysis of the right external rectus muscle.* Sometimes this is observed only by the tendency which certain patients have of moving their eyes in the same direction (above and to the left—Fraser) sometimes one notices a certain degree of internal strabismus, sometimes even a true *diplopia* which, however, is only transitory. It is further necessary to mention here, as quite frequent, a *difficulty in convergence.*

The pupils are usually equal without mydriasis or myosis, but their reactions are often defective. The light reflex is slow or even abolished (Sanger Brown), the accommodation reflex being preserved; there is then in these cases, as in ordinary tabes,

the sign of Argyll-Robertson. Lastly, in two of their patients (Louis H——, Francois H——,) Klippel and Durante noticed a diminution or even the absence of the *accommodation reflex* ; there was total reflex immobility of the pupils.

As to vision itself, I must insist particularly on the troubles which it presents, because, as I have said, these troubles are very important in diagnosis.

The visual field has been found contracted in a large number of cases ; we must note that this contraction of the field of vision was always bilateral ; very pronounced in certain subjects, less so in others.

Somewhat less frequently, but in several cases, however, *dyschromatopsia* has been noted, and this has been ordinarily more marked for green than for the other colors which are better recognized.

The acuteness of vision is not always, but quite frequently, diminished, and this in a variable degree. In one of Nonne's patients (Fritz) it was $\frac{1}{9}$ in the right and $\frac{1}{8}$ in the left eye ; in another patient (Hemrich), $\frac{5}{10}$ in both eyes. In cases XVIII. and X. of Sanger Brown, the acuteness was $\frac{20}{200}$ on both sides ; these patients could read No. 5 of Snellen, although with difficulty, at a distance of eight inches, with an ordinary light. In case XIX. of the same author, No. 3 of Snellen was read quite well at a distance of ten inches. The diminution in the acuteness of vision may, however, be much more pronounced. Klippel and Durante speak of amaurosis in two of their cases. In that of Botkine there was blindness of the left eye. We must also remember the fact pointed out by this last author that several of his patients, in whom the acuteness of vision was only moderately diminished, were able to read by a dim light much more easily than by an ordinary one. In regard to the onset of this diminution of acuteness of vision, it does not seem possible at present to form any precise rules ; certain points are, however, to be noted. This phenomenon is not initial; it is seen usually several years after the commencement of the disease, and when the motor troubles of the legs are already very marked. In case IX. of Sanger Brown, the weakness of vision appeared only twenty years after the disease began. One must not suppose, however, that it is always thus, because in case VII. of the same author, the diminution supervened eight years after the commencement of the disease, and at the end of only four years in one of the cases of Klippel and Durante (Louis H——). Another fact to be noted is that the troubles of vision seem to begin most frequently in one eye only, then one, two, three years later the other eye is invaded. These troubles progress more or less slowly.

There now remains the fundus of the eye to be considered in those patients which present troubles of the vision. Klippel and Durante say they have found nothing abnormal, but Fraser, Sanger Brown and Nonne have observed in it some manifest alterations. These latter changes consist especially in a *whitish decoloration of the papillæ*, with very distinct preservation of their contour, and in the *diminution of the calibre of the papillary vessels ;* atrophic lesions of the *choroid* and *retina* are also present.

If now we compare the condition of the visual organs in hereditary cerebellar ataxia, with that seen in typical Friedreich's disease we find some important differences. It is true that in the latter affection, the nystagmiform jerkings are quite analogous to those we have just described, but except this, all the remainder differ ; in Friedreich's disease ocular paralysis are wanting or are extremely rare; the pupils have always a normal reaction, there is no contraction of the field of vision (except in cases accompanied by hysteria—Charcot,) there is no dyschromatopsia, the acuteness of vision and the fundus of the eye present nothing abnormal.

Let us continue this comparative study, and examine the peculiarities of speech in these different patients. Here the analogy again becomes complete. In cerebellar heredo-ataxia, just as in Friedreichs's disease, speech is slow, guttural, hesitating, explosive-like, resembling closely that of individuals suffering from disseminated sclerosis, only less scanning. As Klippel and Durante have remarked, it is in polysyllabic words that pronunciation offers the greatest difficulty, but not because the patient skips a single syllable; during the efforts that he makes to speak, the tongue, the muscles of the lips, the other muscles of the face execute movements of an exaggerated extent, which contributes to give to these individuals a very singular appearance which might lead one to doubt the integrity of their intelligence.

We will presently see that in many cases this would be incorrect.

The *psychical faculties* are in fact, speaking generally, unaltered; at most it is only a question in the greater number of cases of some *diminution of memory* or of a *melancholy turn* of the mind. Sometimes, however, there exists some more marked mental troubles; in case XII of Sanger Brown, there was *hebetude;* in the same manner the patients of Nonne showed a simplicity, a carelessness really morbid; this latter author further remarks that in these latter cases the *cranium* was of particularly small dimensions.

In regard to the digestive apparatus I have nothing abnormal to discuss, at most in the cases of Sanger Brown (cases V, XV, XXII), some disturbance of deglutition, the patients having a tendency to choke when they drank hastily. In the case of Botkine there was an excessive secretion of saliva.

The only notable modification in the genito-urinary functions seems to consist in the fact that in the greater number of women attacked with cerebellar heredo-ataxia menstruation appears late (in general at about 18 years of age), a phenomenon which is also met with in typical Friedreich's disease. Excepting this the periods are normal both as regards regularity and quantity. The genital power in the male sex is not sensibly altered.

In case X. of Sanger Brown, the urine was retained only with difficulty; as soon as the desire to micturate arose the patient was obliged to satisfy it without delay, for fear of accidents. Otherwise the sphincters performed their functions normally.

The absence of trophic troubles in cerebellar heredo-ataxia merits recognition because it is only from pure exception, that the nails became detached in a case of Klippel and Durante (Francois H——). A certain degree of amoytrophy in case V. of Sanger Brown, or a diminution of body weight in some of the other cases. The important point is that in cerebellar heredo-ataxia one does not find (except perhaps, in the case of Botkine, in which a slight degree of cypho-scoliosis is noted) any trace of the scoliosis so frequent in typical Friedreich's disease, nor yet of the talipes, special to this latter affection, and which is seen in it at so early a date that it constitutes, in certain families, one of the best initiatory signs.

We have now reached the end of the clinical study of this affection. I have taken care in describing it to you, to insist on those symptoms by which it differed from typical Friedreich's disease. It is not necessary to return to this point, and I will limit myself now to a rapid enumeration of the distinctive characters which belong to cerebellar heredo-ataxia; the more advanced age at which the disease appears, preservation or even exaggeration of the patellar reflexes, frequency of the spasmodic phenomena, visual troubles (contraction of the field of vision, dyschromatopsia, diminution of acuteness of vision), absence of cypho-scoliosis, absence of talipes.

By the comparison of the symptoms in either affection one can, I think, conclude that there is a necessity for distinguishing one from the other, from a nosological point of view.

There now remains for us to decide whether, from an anatomo-pathological point of view, the same separation is not necessary.

The descriptions which we possess on the pathological anatomy of cerebellar heredo-ataxy are unfortunately not numerous, since in reality only two autopsies are at our disposal: one of Fraser, the other of Nonne; but the descriptions of these two autopsies have much in common. In both, one fact is striking, the *atrophy of the cerebellum.* This organ weighed in Fraser's case 81 grammes, in that of Nonne 120 grammes, the normal weight being from 150 to 170 grammes; hence there is a diminution of one fourth their normal weight. The cerebrum, on the contrary, seemed normal in Fraser's case, and in that of Nonne had lost only one-ninth of its normal weight. The latter of these authors found no microscopic changes in the cerebellum, whilst Fraser states that it is especially the grey cortical substance of the cerebellum which is reduced in volume, the white matter being nearly normal in amount; he even proved the disappearance of a large number of the cells of Purkinje and an alteration in those which remained. Hence a fact seems to be well established, the atrophy of the cerebellum. Another very important fact is shown by these autopsies, viz.: that the cord examined by the microscope presented no alteration whatever, the only modi-

fication which could be discovered being a simple diminution of volume (Nonne).

Let us now compare these anatomo-pathological reports with those we possess on typical Friedreich's disease. We observe that if there exists a certain analogy in the symptoms and pathological anatomy of these two affections, that there are differences in this latter which are much more marked. In Friedreich's disease, in fact, one finds, also, a notable diminution of the volume of the cord, the microscopic examination of which shows, in all the autopsies, the existence of very extensive degenerative lesions, implicating the column of Burdach, the column of Goll, the direct cerebellar tract, the crossed pyramidal tract, the cells of Clark's column. One notices how very great is the difference in regard to cerebellar heredo-ataxia which is not accompanied by any degenerative lesion of the cord whatever.

Such are the facts which appeared to me worthy of the creation of the group cerebellar heredo-ataxia. In this rapid sketch, in order to make the facts more clear to you, I have spoken intentionally, only of the cases in which the anatomical or clinical characters were well marked, in order to present to you a sufficiently striking picture of this affection. I must not terminate, however, without speaking to you of certain reservations which the study of this question suggests.

There exists in fact several cases which from their less well-defined symptoms and even from the more complex lesions discovered at the autopsy, cannot be easily placed in this new morbid group, nor yet will they enter distinctly into that of typical Friedreich's disease. But, by the fact itself, that they share each of these affections, they form so to speak between the two, transitional forms, which it is extremely difficult to class in a rational manner.

I will speak to you at first of the two cases of Seeligmüller, in which we note indeed the commencement after puberty, the exaggeration of the patellar reflexes, a general appearance different from that of typical Friedreich's disease; but the troubles of vision are absent or seem to be so, and such being the case it is impossible to affirm that they belong to cerebellar heredo-ataxia.

In the first case of Rouffinet the age of the patient, the existence of visual troubles lead one to suppose that we are dealing with the affection now under consideration; but the report is so abbreviated on all the other points that sufficient evidence is lacking to come to auy definite conclusion.

Lastly, the most interesting case of all, from this point of view, is certainly that of Menzel, in which we find, along with nearly all the classical symptoms of typical Friedreich's disease, the exaggeration of the tendon reflexes and the existence of other spasmodic phenomena (the claw hand, legs contractured in flexion). The absence of visual troubles alone prevents the classification of this case in cerebellar heredo-ataxia. One would think that the autopsy on a case of this kind would easily permit of a solution for the difficulty, but in this instance we find that the lesions not less than the symptoms participate as well in cerebellar heredo-ataxia as in typical Friedreich's disease.

In fact, the autopsy of the case proved that as in the latter of these affections, thecord presented very pronounced and multiple degenerative changes (posterior columns, crossed pyramidal tracts, direct cerebellar tracts, columns of Clarke, etc.), and, as in the former, there existed a manifest atrophy of the cerebellum with a disappearance of the cells and fibres of Purkinje.

Such a case may well inspire the reservation of which I have just spoken. On account of the scanty information we at present possess, we must, until further advanced, ask ourselves if cerebellar heredo-ataxia and typical Friedreich's disease are not, from the point of view of general pathology, more closely related to one another than might be at first supposed from the differences which they present, either in regard to their symptoms or anatomically. It is possible in a word that both affections may be only different forms of the same morbid conditions, a same initial process, hereditary degeneration, attacking in the nervous centres analagous but distinct organic systems, or indeed implicating in Friedreich's disease a number of systems other than those involved in cerebellar heredo-ataxia.

## Selected Articles.

### THE GREAT MEDICAL ERROR OF THE DAY.

In the treatment of the diseases of women at the present time, there seems to me to be a tendency to lay too much stress upon lesions of the reproductive organs. Too little heed is, therefore, given to the nerve-element of woman's diseases, and as a natural sequence, the surgical feelers and antennæ of the medical profession, always too keenly sensitive, vibrate vehemently at the approach of an ailing woman. This trend of the profession, to appeal to the knife as the great panacea for woman's diseases, is seen everywhere. It prevails alike in city, town, village and hamlet. It asserts itself in every medical discussion, and stands out in bold relief upon the pages of every medical journal. It has caused many needless sexual mutilations and unnecessary operations, and it is, in my opinion, the great medical error of the day.

It comes, not so much from the glamour surrounding surgery, nor from the greed of gold, but from errors of judgment, and from mistaken diagnosis. These arise from the fact that woman, through her sensitive and emotional organization, is a bundle of contradictions. More pitiful than man, and more long-suffering, her anger is more cruel, and her jealousy more relentless. Feebler than man, an appeal to her affection will make her surpass him in sheer muscular endurance. Who can nurse her kin so untiringly, and with so little rest, as even a frail woman can? What father can equal a mother in fondling and soothing a sick and fretful child through the weary night watches? What man can undergo the sheer fatigue, the strain and stress that a woman will for those she loves? Even in her pleasures, her physical amusements, she will, through keen enjoyment, often out-tire the strongest man. In one word she is a creature of impulse and of emotion. But all nerve-strains, whether arising from the emotions, from the affections, or from the passions, have their reactions, and very strange and very misleading reflexes come from the loss of brain-control over insubordinate lower nerve-centres. For what is hysteria but nerve misrule, and the panic of the brain at incompetent control. The secret and sanctity of woman's inner life lies in her affections, and what disturbs them disturbs the nerves, and through them their environment of flesh and blood. These unruly nerve lights flashing and fading at their own will, and without control, in the different organs of the body, the most careless observer may sometimes plainly see, for the clue is then as secure as the steps of a geometrical problem. But then again the symptoms are more frequently obscure. Often they are as misleading as the lapwing's flight. To construe such symptoms, to unfold their sense, and to paraphrase them, so as to gain a true conception of their character, often demands a deep acquaintance with human life, and a keen insight into the most secret springs of its action.

Again, what is very perplexing, uterine symptoms are by no means always present in cases of uterine disease; and, what is still more bewildering, when so-called uterine symptoms are then present, they need not necessarily come from the uterine disease. The nerves are mighty mimes, the greatest of mimics, and they cheat us by their realistic personations of organic disease, and especially by their life-like imitations of uterine disease. Hence it is that even seemingly urgent uterine symptoms may be merely nerve counterfeits of uterine disease. In fact, the time has come when we must give up the belief, which with many amounts to a creed, that woman is woman because she has a womb, and that the womb is at the bottom of nearly every female ailment.

Nerve-strain, or nerve exhaustion, comes largely from the frets, the griefs, the jealousies, the worries, the bustles, the carks and cares of life. Yet, strangely enough, the most common symptoms of this form of nerve-disorder in women are the very ones which lay tradition and dogmatic empiricism attribute to ailments of the womb. They are, in the usual order of their frequency, *great weariness*, and more or less of *nervousness*, and of *wakefulness;* inability to walk any distance, and a bearing-down feeling; then headache, nape-ache and backache. Next come scant, or painful, or delayed, or suppressed menstruation; cold feet, and an irritable bladder; general spinal and pelvic soreness, and *pain in one ovary*, usually the left, or in both ovaries. The sense of exhaustion is a remarkable one; the woman is always tired; she spends the day tired, she goes to bed tired, and she wakes up tired; often, indeed, more tired than when she fell asleep. She sighs a great deal, she has low spirits, and she often fancies that she will lose her mind. Her arms and legs become numb so frequently that she fears palsy or paralysis. Nor does the skin escape the general sympathy. It becomes dry, harsh and scurfy, and pigmentary deposits appear under the eyes, around the nipples, and on the chin and forehead. Blondes are likely to get a mottled complexion, and brunettes to be disfigured by brown patches, or by general bronzing. Sometimes the whole complexion changes to a darker hue, and an abnormal and a disfiguring growth of hair appears on the face. There are many other symptoms of nerve-strain, but since they are not so distinctly uterine in expression, and, therefore, not so misleading, I shall not enumerate them.

Now, let a nervous woman, with some of the

foregoing symptoms, recount them to a female friend, and she will be told she has "womb-disease." Let her consult a physician, and he, especially if she has backache, bearing-down feelings, an irritable bladder, and pain in the ovaries, will assert the same thing, and will diligently hunt for some uterine lesion. If one be found, no matter how trifling, he will attach to it undue importance, and treat it heroically as an erring organ. If no visible or tangible disease of the sexual organs be discoverable, he will lay the blame on the invisible endometrium, or on the unseeable ovaries, and continue the local treatment. In any event, whatever the inlook or the outlook, a local treatment more or less severe, is bound to be the issue.

Yet, these very exacting symptoms may be due *wholly* to nerve-strain, or (what is synonymous) to loss of brain control over the lower nerve centres, and not to direct or to reflect action, from some supposed uterine disorder. Neither, for the matter of that, may it come from some real, tangible, and visible uterine lesion which positively exists. Thus it happens that a harmless anteflexion, a trifling leucorrhea, a slight displacement of the womb, a small tear of the cervix, an insignificant rent of the perineum, or, what is almost always present, an ovarian ache, each plays the part of the will-o'-the-wisp to allure the physician from the bottom factor. To these paltry lesions—because they are visible, palpable and ponderable, and because he has, by education and by tradition, a uterine bias—he attributes all his patient's troubles; whereas a greater and subtler force, the invisible, the impalpable and the imponderable nervous system, may be the sole delinquent. The sufferer may be a jilted maiden, a bereaved mother, a grieving widow, or an neglected wife, and all her uterine symptoms—yes, every one of them—may be the outcome of her sorrows, and not the outcome of her local lesions. She is suffering from a sore brain, and not from a sore womb.

Fortunately for my own reputation and for that of my medical brothers who have thus erred, this grave error of diagnosis is not without excuse. For, as has been shown, the symptoms of nerve-strain—the reflexes of grief, of love, of neglect, of remorse, of jealousy and of unrest—so closely simulate those of even coarse uterine lesions that the nerve mimicries very readily may be mistaken for the symptoms of actual organic disease. Nor, indeed, are they always distinguishable the one from the other, for the marvellous kinship between mind and matter is a tangled skein unraveled yet by dead-house or by laboratory.

Let me illustrate this: Some years ago a healthy lady, aged 23, was engaged to a gentleman whom she tenderly loved. The wedding day was named, the clergyman was notified and the invitations were sent out. Three days before the one fixed upon for the marriage there came a letter from the man breaking off the engagement. The blow to her love and to her pride was, of course, great. She secluded herself in her room, and in a few days took to her bed with many symptoms of nerve prostration, of which dysuria and an irritable bladder were the most prominent. For these vesical symptoms she was treated by the family physician with external and internal electricity and with repeated flushings out of the bladder. Getting no better, but steadily worse, the next year she fell into the hands of a specialist who diagnosticated anteflexion of the womb, cervical erosion and fissure at the neck of the bladder. He dilated the urethra, washed out the bladder and treated the womb *secundum artem*. Still remaining an invalid, she consulted a third physician six months later. He also dilated the urethra, examined the bladder with the endoscope, washed it out repeatedly, applied electricity to it by an internal electrode, and gave cold douches. No improvement following this treatment, she called in a fourth physician. He kept her several weeks under his care, dilated her urethra, and treated her mainly with electricity if I remember correctly, but of this I am not absolutely sure. At any rate, she was not made a whit better, and a fifth physician was summoned. He without success treated her for anteversion of the womb and rectal ulcer. She now saw her sixth physician. By this time her urethra had been dilated so frequently that, in the examination, his finger entered the meatus urinarius, and, not at first recognizing his mistake, he remarked upon the extreme narrowness of the vagina. He recommended the formation of a button-hole fistula in the urethra, but this advice was rejected. Four years after the beginning of her disorder she returned to the second physician whom she had previously consulted. After treating her heroically for some time without the slightest benefit, he proposed the excision of the bladder. This operation was refused, and she, one year later, drifted back to her sixth physician. He first made a buttom-hole fistula in the urethra. This failing to do any good, an artificial vesico-vaginal fistula was next tried. No benefit accruing from this operation, her ovaries, as the last resort, were removed, but peritonitis set in and she died. Now, what is the true interpretation of this sad case? The terrible shock to her pride and to her affections shattered her nervous system, and she was suffering more from the reflexes of a sore brain than from a sore bladder or from sore ovaries.

One more example for illustrating the influence of the mind over the body: A lady, after receving the sudden news of her sister's death, began at once to throw up her food. Despite all remedies prescribed by the family physician, the vomiting

persisted so stubbornly that she lost flesh, became weak and menstrual disturbance set in. A consultant, recognizing the neutoric character of the disease, wished to treat it accordingly. Yet, so impressed was she and her relatives by many so-called uterine symptoms, which they attributed to some disease of her reproductive organs, that they laughed at his diagnosis and dismissed him. Two specialists, therefore, were summoned separately, and each one independently of the other attributed the vomiting and her other symptoms to tear of the neck of the womb, and advised an immediate operation. For this purpose she went to the private hospital of one of these gentlemen. Directly after her admission she was seized with such violent and uncontrollable vomiting that in a few days her life was in danger. First one eminent physician and then another were called in by the specialist, and the three were in constant attendance until, after a desperate illness she became well enongh only to be carried home. No operation whatever had been performed on her cervix, for she had been dangerously ill and was still too ill. She was now placed in the hands of her first consultant, who treated her nerves and her nerves only. Under this treatment she became well, and has continued well ever since, although the cervical tear still exists. In one word, it was the old, old story of wounded nerves counterfeiting a wounded womb.

Strange it may seem, the coccygeal joint is very liable to play the barometer to any kind of mental worry. The serious surgical blunder is, therefore, not infrequently made of extirpating for sheer hysterical coccygodynia this important bone, important for its muscular origins and insertions. I have known coccygodynia to attack a lady after the death of her mother. Every kind of treatment failed, but it was finally abruptly cured by her great resentment at the second marriage of her father.

The late Dr. Fordyce Barker told me of an analogous case caused by the sudden death of the gentleman to whom the lady was engaged. After consulting without benefit the best specialists at home and abroad, she led a sofa-ridden life, and did not stir from her house. She obstinately objected to surgical intervention, and the case seemed a hopless one; but she was permanently cured by a lawsuit following a bitter family quarrel, on which she took a very active part. I have not in my conscience the extirpation of a nervous coccyx, but this exemption is merely a piece of good luck, and not of good sense, as the following history will show: A highly intellectual lady, among many nervous symptoms, suffered much from her coccyx. This she attributed to injuries sustained while riding a bucking horse. She was the patient of an eminent neurologist, who had cured her of all her symproms, but the coccygeal one. I was called in by him, and, after doing my best by topical applications, and by replacing a retroverted womb and dislocated ovaries, made up my mind that the trouble was a traumatic one needing surgical relief. The day and the hour of the operation accordingly were fixed upon; but, before they were reached, the pain mysteriously left the coccyx, never to return. A dominant mental impression—the fear of the operation—exorcised the coccygeal demon.

Once I was asked by a medical friend to see an exceedingly bad and acute case of pruritus vulvæ; the very worst that ever came under my observation. The lady was tossing about in her bed in a state bordering on frenzy from intense itching which could be allayed only by cold starch poultices applied every few minutes. Very naturally attributing it to uterine disease, my friend had discovered a small but angry-looking tear in the cervix, exuding a viscous discharge, and I was called in to the case to decide the question of an operation. I, too, was at first led astray; but the suddeness of the seizure, its vehemence, and the lack of consistency in the behavior of the symptoms put me on my guard, and we soon found out the cause to be an attack of jealousy. This was a stubborn case to manage, but she ultimately recovered under isolation, massage, and heroic doses of asafetida.

Twice I treated a highly intellectual lady for attacks of pruritus vulvæ, and of vaginismus. The itching was intolerable, and the sensitiveness of the genitalia so acute as to forbid every attempt at sexual intercourse. Each attack was brought on by mental overstrain, from exacting literary work, and much domestic unhappiness ensued. Several cases, I have personally known, of ladies who had for months been treated for supposed uterine or ovarian disease, when their whole and only trouble was remorse at having had illicit intercourse, or at having resorted to criminal abortion. I could spin out of an interminable length this list of cases illustrating the close and often very perplexing kinship between the brain and the reproductive organs, but time and space forbid, and these will suffice amply for my purpose.

For such cases as the foregoing ones moral therapeutics are needed, and we may here take a lesion from the ancients. They, recognizing the influence of the mind upon the body, successfully used incantations concurrently with medicines. Savages imitate them by their herb teas and sweat-baths, made mysterious by the pow-vows of the wizard and by the thaumaturgic pranks of the medicine-man. The incantations used by civilized nations at the present day—and I name them with all reverence—are alms, vows, spells, charms, pilgrimages, exorcisms, Christian science, the faith cure, the laying on of hands, and other like forms

of moral therapeutics, which unquestionably have cured and will cure so long as they produce dominant impression. The legitimate incantations of medical therapeutics are now pretty much limited to distractions, to diversions, to travel in foreign lands, to isolation to hypnotism, to massage, to electricity, and above all to the personal magnetism of the physician, however exerted, for this is the kernel of the treatment and the greatest of all incantations.

Sometimes in these cases an operation acts the part of an incantation. The dread of the knife, and the shock of the operation, distract the mental attitude of morbid concentration; while the enforced rest in bed gives a chance to the worn-out brain to regain strength, and to assert its supremacy over the mutinous lower nerve centres. This leads me think that in a large majority of operations upon trifling tears of the crevix, and on incomplete lacerations of the perineum, the good which may accrue comes less from the repair of those organs, than from the mental distraction and the enforced rest. But this kind of incantation is—the surgical variety—does not always work well; indeed, it often, very often, makes matters worse. One striking example was a lady who saw her only child run over and beheaded by a locomotive. Her health began at once to fail, and she took to her back with the hackneyed symptoms of weariness, wakefulness, a bearing down, an irritable bladder, and many other canonical uterine reflexes. These were attributed by an excellent and a conscientious physician to a torn crevix, and to a torn perineum, which were accordingly repaired. But the added shock of the two operations made her very much worse. For these reasons, I must confess to becoming far less inclined than formerly to operate on trifling lesions of the reproductive organs, and especially on small tears of the perineum, the repair of which is painful, unnerving, and generally of doubtless expediency. I have become very sceptical of the influence of such lesions upon the general health, and have come to the belief that, even in bad cases, it is greatly overrated. In my experience the mistake usually made in these cases is that of attributing to the lacerations the mock uterine symptoms of nerve prostration. About this there can be no error, for I have over and over again, without any surgical treatment whatever, cured of their ailments patients, who had been sent to me for the very purpose of undergoing some operation on the womb, on the perineum, or even on the ovaries themselves.

Just as headache does not necessarily mean brain disease, so ovary-ache, groin-ache and back ache do not necessarily mean ovarian disease. Nerve-strain and these aches are, it is true, correlatives, but the middle term which connects them is merely a disturbance in the circulation. Yet, time and again—and I say this deliberately—have ladies been sent to me to have their ovaries taken out, when the whole mischief had started from some mental worry. Their ovaries were sound, but their nerves were not, and no operation was needed for their recovery. The physician of the present day is too apt to jump from any distinctly female ache to an ovarian conclusion without the delay of any misgivings. The ache is in the back, then he argues, it probably is ovarian; it is in the groin, then, of course, it is ovarian; it is in the head, but extremes meet, and surely it comes from the ovaries I, indeed have seen a painful nose and also a red one, attributed to the ovaries and treated canonically by the hot vaginal douch and uterine applications. From this widespread bias and pernicious haste the removal of the ovaries has degenerated into a busy industry by which, in city and in country, very many women have been and are being multilated, both needlessly and on the slightest provocation.

So misleading, indeed, are the symptoms of a jaded brain or of other nerve-strain, under the uterine guise in which they often masquerade, that when a jilted girl, a bereaved mother, or a grieving wife, consults a physician, he, unless on his guard, will be more likely to minister to a womb diseased than to a mind diseased. Such cases, even when associated with actual uterine disease, are not bettered by a merely local treatment. Nor are medicines by themselves of much avail. What they need are the incantations of the rest cure, viz., massage, electricity and strict seclusion. Hope should be infused into every case, and above all there should be imported into it the personality of the physician. The riper my experience, the more am I convinced that, in the treatment of woman's diseases, the possibility of a nerve-origin or of a nerve-complication should be the *fore*-thought and not the *hind*-thought of the physician. —Wm. Goodell, M.D., in *Union Med. Mag.*

## THE TREATMENT OF INTESTINAL OBSTRUCTION.

In introducing the discussion, Mr. Page said: it will be readily admitted that few cases give rise to more difficulty and doubt in practice than cases of acute intestinal obstruction, and by acute intestinal obstruction I mean "a total arrest of the passage of fæces and flatus." Why this is so is obvious enough, for acute intestinal obstruction is a symptom of a great variety of conditions, all of which imperil life. The difficulty in treatment arises from the doubt as to the cause of the obstruction. When a strangulated hernia exists—the commonest cause—the treatment is obvious. We attempt to liberate the imprisoned gut by taxis, first without and then with the aid of chloroform; failing, the stricture is at once cut

down upon, and the bowel liberated. Herniotomy is successful in proportion to its early performance, and it will not be denied that grave mischief is frequently done by taxis. When no hernia can be found the cause of the obstruction must be within the proper cavity of the abdomen. If it could be ascertained that a portion of gut were strangulated it could make no difference as to treatment, whether the site of strangulation were in the proper cavity of the abdomen or in a hernial sac —a diverticulum of the abdominal cavity ; in both cases the treatment should be the same. Unfortunately it cannot be ascertained that the symptoms are due to strangulation. They must, however, be due to some one or other of the various mechanical conditions which are known to cause obstruction, or to an acute inflammatory process, such as a suppurating gall bladder, peritonitis, or typhlitis. I cannot think that anything but disaster is likely to arise by treating an acute inflammatory attack by abdominal taxis and repeated injections of air or fluid. Opium, bleeding, and fomentations relieve acute inflammatory symptoms, and might cure the patient were the disease not dependent upon a mechanical obstruction or upon perforation. But there is always a cause for peritonitis, and if septicæmia and external injury be excluded, in the great majority of cases, it is due either to a mechanical obstruction or to perforation, and is itself best treated by abdominal section. It is generally impossible to determine what is the cause of peritonitis, or what is the nature of the obstruction, when no peritonitis is present, without opening the belly. Why should not the belly be opened for the purpose of ascertaining the cause of the symptoms, and, if possible, removing it? It must be admitted that cases of acute intestinal obstruction (a very small proportion) recover without operation, the cause of obstruction remaining a matter of conjecture, and that the mortality in cases of abdominal section has been, and at present is, very high. The mortality from herniotomy used to be very high, and from the same cause that the mortality of abdominal section for the relief of intestinal obstruction is now high—delay. The earlier a patient is operated upon for strangulated hernia the better is his chance of recovery, and the earlier abdominal section is performed for the relief of acute intestinal obstruction, the better is the chance of success. I do not wish to convey the idea that the opening of the abdomen is a trivial matter. It is not, nor is any operation in surgery. But exploration by means of an incision cannot, at the present day, be said to add materially to the danger a patient suffering from acute intestinal obstruction is already in, and it may, and probably in most cases would, reveal the nature of the disease. It is not my purpose to discuss seriatim, the possible conditions an exploratory incision may reveal, nor how they are (when found) best to be dealt with. That would occupy more time than I think could be profitably spent over the debate. I wish to urge the necessity, after a careful examination of the abdomen under chloroform has failed to relieve the patient of at once exploring the abdomen by means of an incision. What is the alternative? Delay—opium and belladonna, copious and often repeated injections, inversion, abdominal taxis under chloroform, shaking the patient, and inflation. In how few of the known causes of acute intestinal obstruction can these means possibly be successful? What if the chance of operative interference being successful after they have failed? In how many conditions must they inevitably do harm? I do not say that in no cases of intestinal obstruction are these measures to be resorted to. In the less acute cases they are applicable, and by relieving spasm, softening and displacing fæces, are often successful, just as in cases of incarcerated hernia they suffice. Chronic intestinal obstruction generally depends upon blocking of some portion of the large intestine, and the symptoms are not nearly so urgent, but even in such cases it may be found necessary to open the abdomen. Such cases often require the large gut to be opened, and, in my opinion, this is far better done by an anterior incision, either inguinal or median, than by lumbar colotomy. There are cases—I think, the more acute—where the indication is to open the abdomen at a very early period ; others more chronic where delay and other means are indicated ; and there is an intermediate subacute class where it is most difficult to determine what shall be done. The best guide to treatment is, I believe, the effect the disease is having upon the patient. If the symptoms, narrowly watched, indicate that the vital powers are threatening to fail, then, though the symptoms themselves may not be very severe, I think operative interference should be resorted to, and where the question as to the propriety of opening the abdomen or waiting is prettly evenly balanced, I am of opinion it is better to operate. I know at present of no better criterion as to the necessity of operative interference in the most anxious cases than the effect the disease is producing upon the patient. It is not unreasonable, I think, to expect, with so many able men looking at this difficult problem, and from opposite points of view, that the time may come when it will be possible to make a more accurate diagnosis than we can to-day arrive at; but at present I know of no better criterion as to the necessity of operative interference, in cases of intestinal obstruction, than the effect the disease is producing upon the patient.—Fred. Page, M.A., M.D., in *Br. Med. Jour.*

## MEDICAL NOTES.

Dr. Wolff says that the *Carbonated Waters* have a very favorable influence on the flow of bile.

In cases of enteric fever, Prof. Wilson says, if signs of *Peritonitis* develop, opium should be administered freely.

Prof. Montgomery says *Pain occurring at the time of or immediately after menstruation* is due to a disease of the tubes.

Prof. Wilson says during a severe epidemic of *Influenza* more lives are destroyed than during an equally severe epidemic of cholera.

According to Prof. Hare, chloral and the bromide of potassium are the best drugs that can be administered during an attack of *Tetanus*.

Prof. Keen favors the giving of *Opium* in cases of incurable disease, such as cancer, so often as the patient's painful condition calls for it.

A *Fall of Temperature* after twelve o'clock noon in a surgical case, Prof. Keen considers a good sign, showing that defervescence has set in.

Prof. Keen says in cases of *Carbuncle* the urine should always be examined for sugar, as diabetic patients are very prone to have carbuncles appear on them.

Prof. Parvin states that a cold pack applied over the region of the uterus will in many cases cause *Excessive Irritability of the Uterus* to be allayed for a time.

Prof. Keen thinks the best remedy for removal of *Proud Flesh* in a healing wound is chromic acid, ten grains to the ounce, applied about two or three times.

In cases of *Septicæmia*, Prof. Keen says, the best results will be obtained if the alcoholic stimulants be pushed to such an extent as to make the patient mildly drunk.

Prof. Hare says only cases of *Major Epilepsy* will be benefited by the use of amyl nitrite, and especially those of this form which have an aura before each epileptic attack comes on.

*Children*, Prof. Hare says, require a smaller amount of narcotic drugs, about one-half proportionately, than adults, but of purgatives they require proportionately more than adults, to produce desired results.

Prof. Horwitz recommends as an abortive treatment in *Acute Urethritis* the passing of water of a temperature of 120° Fahr., charged with 1-30,000 bichloride of mercury, into the urethra for the space of half an hour.

Milk given to a patient suffering from *Enteric Fever*, Prof. Wilson says, should be diluted with lime water, in the proportion of five parts milk and one part lime water; or with an equal quantity of one of the carbonated waters.

Prof. J. Solis-Cohen says, *Loss of the Cartilage of the Septum of the Nose* will not cause deformity of the nose unless the loss extends as far back as the union of the cartilage with the vomer, or if the vomer itself be included in the degenerating process.

Prof. Hare says one of the first symptoms that presents itself on the taking of an overdose of *Acetanilide* is the appearance of a red line on the nail of the thumb, just above the matrix of the nail, and in a short time this red line will become blue in color.

Prof. Brinton says *Blood in the Urine* is generally from the kidneys, but if it clots or is bright red in color then it is not from the kidneys, but may be either due to a diseased condition of the bladder or of the prostate gland, or to a stricture, or to a urethritis.

In diagnosing a case of pregnancy, Prof. Parvin says, the question of a *Phantom Tumor* will occasionally arise, and the muscles of the abdomen will be so tense that it will be impossible to make them retract. In such cases, if an anæsthetic is administered the muscles will become relaxed and a diagnosis can then be made.

If *Gonorrhœa in a Female* involve the vulva, Prof. Horwitz recommends that she be kept perfectly quiet, that the parts be washed with a solution of boracic acid or with a 1-4000 solution of bichloride of mercury, then dusted with an antiseptic powder consisting of calomel and bismuth; and a piece of cotton is to be kept between the labia.—*Coll. and Clin. Rec.*

## THE OPIUM COMMISSION.

The general effect of the evidence so far taken before the Opium Commission has served to brush away a good many cobwebs of misapprehension which existed in this country in regard to this subject, owing to an absence of definite information; and we must candidly confess that we imagined the evidence would have been far stronger than it appears to have been as to the extent of the grave evils that are commonly believed to be attendant on the habitual use of opium.

It is a common practice to pour beer into a tumbler from a good height, so as to impart a lively, frothy briskness to that beverage and to give it what is called "a head." Now, it is the misfortune of most anti-opium societies that they

adopt a somewhat similar process in pouring out their facts for public consumption. When "the head" is blown off, it is often astonishing to find how little liquor there is left at the bottom of all the froth. We trust the anti opium societies will pardon us for using this illustration in connection with their movement; but from all that we learn regarding the evidence taken before the Opium Commission the illustration is not altogether inapplicable to the subject. No one denies that the abuse of opium produces disastrous results, and it is easy to paint a picture of a debased victim of the opium habit so as to leave it to the imagination to suppose that this is the necessary and ordinary result of the use of opium—that it is a fair representation of the average everyday product of our opium trade in India and the East; whereas the result of recent investigations is to show that it is nothing of the kind, that it is quite exceptional, and that it would be a gross exaggeration to represent it as a common or frequent phenomenon.

The Indian Government, laboring as it does at present under a grave financial crisis, strongly objects to having to bear any of the expenses attending the Opium Commission; moreover, in the event of the use of opium being prohibited for other than medical purposes, this country would have to face the fact that it would have to make a large annual outlay to India to make up for an estimated annual loss to that country of some £12,000,000 or £13,000,000, through the suppression of the opium trade. On economical and political grounds, therefore, it is incumbent on the anti opium movement to make out a very strong case why the opium traffic should be suppressed on religious, moral and physical grounds; but they have failed to do this. The reports of the proceedings of the Opium Commission have served to throw a great deal of light on the subject; the evidence, as a whole, seems to point in an entirely opposite direction, and may well make thoughtful people hesitate before they suppress the use of opium in India and encourage thereby an increased importation and consumption of alcohol, or the substitution for opium of an infuriating agent like ganja. It was a wise remark that there is a good deal of human nature in man. We are not mere mechanical automata, but sensitive, emotional organisms. So long as the causes of physical and mental depression exist, and want, hunger, sorrow and misery continue in the world, so long will human beings have recourse to agents which will either temporarily stimulate the nervous energies or dull the sensibilities. We would here call attention to a very able communication by Surgeon-Lieutenant-Colonel Crombie, Superintendent of the European General Hospital, Calcutta, which appeared in *The Lancet* of Sept. 9th, and to the testimony of numerous medical officers and others with extended Indian experience. There seems to be altogether a large body of evidence—European and native, medical and lay—which goes to show that the moderate use of opium not only does no apparent harm, but is actually beneficial under many conditions, and that its immoderate use is very rare, and not anything like so hurtful as the immoderate use of alcohol. According to the records of the Oriental Life Assurance Company, for the last twenty years there was not a single death attributable to the use or abuse of opium of 973 death claims since 1874, and the Company has upon its books something like 20,000 native assurers. It is notorious that opium is used by some of the bravest and most energetic races of India. The Sikhs and Rajputs, for example, are fine, stalwart races, and a very considerable proportion of them take opium. We were much struck with the reported testimony of Mr. Monro, late Chief Commissioner of the Metropolitan Police, who is engaged in missionary work, and is perfectly unbiased. He condemned the anti-opium agitation as groundless, and added that the use of opium was no obstacle to missionary work. Even supposing that the opium trade was suppressed, this measure would, in all probability, be at once followed by an increased production of opium in the Native States of India and in Persia and China. It is, however, not questions of mere policy or expediency that concern us so much as the fact that a great deal of ignorant misapprehension and exaggeration exists in this country with regard to the use of opium, which the evidence given before the Commission will, we trust, remove.—*Lancet.*

## PAINFUL JOINTS IN MUSCULAR RHEUMATISM.

In the *Revue Médicale de la Suisse Romande*, M. Ruel contributes an article of great practical value on the external use of the salicylates in the rheumatic affection of joints.

He says: That for more than six years in his clinic at Geneva, he has repeatedly and systematically employed external applications of salicylic acid alone, or combined internally in painful joint troubles. He first employed in poly-articular rheumatism on the integument in the *loco dolenti*, without concomitant internal medication. The effects were most rapid and happy.

Professor Revillod in his service, says, that:

1st. Salicylic acid is rapidly absorbed by the skin.

2nd. After being so applied, it promptly appears in the urine.

3rd. It possesses a positive curative action in rheumatism.

He found that the best results were realized when the salt was dissolved in alcohol with about double its volume of castor oil in the form of a liniment, that has been supplied in our pharmacopœia in years.

I have had no experience with it in acute inflammatory rheumatism, but, for joint inflammations or neuralgias, or those confined to the muscles, its action is marvellous. I have found it equally efficient in plegmasia-dolens; lumbago, sciatica, blenorrhagic-arthritis, or that arising from malaria or syphilis.

But, it exerts its greatest potency in the joints of children, very many of which are prematurely set down as tubercular and condemned, and shackled in braces, before rheumatic remedies are thoroughly tested.

This formula which I prescribe is better in my hands for all cases than Ruel's which is intended for rheumatic cases only. It is as follows:—

℞—Acid. Salicylic, . . . . . ʒ iv.
Spts. vini. rect., . . . . f ʒiv.
Chloroformi, . . . . . f ʒ iv.
Tinct. opii., . . . . . f ʒ v.
Olei dulcis qs. ad., . . . . f ʒ xi.—M.

Sig.—Liniment.

M. Ruel's customary formula is:

℞—Acidi. salicylici., . . . 20 grammes.
Alcohol absolute, . . 100 "
Ol. Ricini., . . . . 200 " —M.

This is to be applied on a flannel, which is to be covered with some impregnable material, morning and evening. In certain solutions a small quantity of chloroform may be added—say 5 per cent. This addition serves as an analgesic; besides, favors the absorption of the medicament. About twenty minutes after the salicylic acid is employed it can be found in the urine, and a few minutes after a salicylic liniment is applied pain vanishes, and it is replaced, by a sense of warmth and comfort.

Since 1887 the author has thus employed salicylic acid, in general inflammatory rheumatism, but as well, in its local phases; besides, in pericarditis and pericardo-pleuritis; in the arthroses attributable to neuralgia, gonorrhœa, etc.

My own experience with this preparation during the past six months, since I first learned of it, is that it provides us with the most valuable preparation. By this combination, employing olive oil, instead of castor, we substitute a substance more readily absorbable.

By the addition of opium the sedative properties of the mixture are enhanced so that it serves more effectually as an analgesic in painful neuralgic affections, and thus obviates the necessity of administering anodynes internally.

Linseed oil might be substituted for the olive, when economy is an item.

In all cases it should be applied fresh. Hence, should be compounded only in such quantities as are ordered, for salicylic acid decomposes very readily, and thus the valuable virtues of the remedy are lost.

It should be applied, chiefly, warm in the palm of the hand, and should be well rubbed in; not only over the affected joint, but also above to the next joint over the intersectual muscles. In most cases but a small quantity of the liniment is needed.—*Times and Reg.*

## THE ROLE OF LACTIC ACID IN GASTRIC DIGESTION.

Lactic acid is present in the stomach under normal conditions from thirty to forty minutes after a test-meal composed of a roll and water or of chopped lean beef, dry bread, and water. At the expiration of that time lactic acid should entirely disappear from the stomach-contents and free hydrochloric acid alone should prevail. During the first thirty or forty minutes after meals the digestion of starches and albuminoids progresses quite rapidly, as may be proved by finding the middle-products and end-products of gastric digestion present, so that the presence of free lactic acid does not prohibit digestion.

As soon as food enters the healthy stomach the secretion of hydrochloric acid is excited and it increases in amount until the production of lactic acid is checked. The exact origin of lactic acid in the healthy stomach is still a matter of debate. It may arise wholly from fermentation, or from the combination of some food-product with a secretion from the gastric glandules, or from the gastric mucosa as a distinct secretion, although electric stimulation of the gastric glandules excites the secretion of hydrochloric acid and not of lactic acid. I think it arises largely from fermentation of the food, as its amount is usually proportionate to the amount of starchy, saccharine, and milk foods taken.

I have, however, many times found lactic acid present in the stomach-contents two, three, or more hours after the ingestion of lean meat alone, in some cases the patient having been on a meat-diet for several days; under such circumstances I have followed the usual custom of calling it sarcolactic acid.

If after a test-meal consisting of albuminoids and starches, lactic acid is found in the stomach-contents at the expiration of one hour or longer, it may be called abnormal. I have found during the past few years that lactic acid very frequently exists in large quantities in the stomach during the late hours of digestion, and that it is persistently present in some cases, without regard to the character of the food or the period of digestion. In-

deed, I have cases on record in which lactic acid was present in excess during the whole period of gastric digestion, and as many of these cases had diminished peristalsis, their stomachs were free from lactic acid only a few hours during the twenty-four.

When hydrochloric acid exists in the stomach in proportions over from 0.2 to 0.4 of 1 per cent., we dignify the defect in gastric chemistry by the name hyperchlorhydria, or an excess of hydrochloric acid. But such a state is not more definite, nor is it more susceptible of detection, study, and treatment, than lactic-acid excess; nor are the etiologic factors more definite in the former than in the latter. I therefore think it reasonable to recognize the condition as an entity, and so consider it.

Lactic acid in abnormal quantity is found in the stomach in many cases having a deficiency of hydrochloric acid. It is difficult to determine in these cases whether the lactic-acid excess is the cause or the consequence of the diminished amount of hydrochloric acid. If, however, upon the withdrawal of all starchy and milk-foods from the diet free hydrochloric acid appears in normal amount, it is probable that the excess of lactic acid depends upon improper diet rather than upon primarily diminished secretion of hydrochloric acid. If, on the other hand, free dydrochloric acid does not appear in the gastric contents after stopping starchy and milk foods, it is probable that its secretion is really deficient and therefore lactic-acid fermentation is rendered easy.

A very common cause of lactic-acid excess is found in impaired motility of the stomach, which allows too long retention of its contents, with the over-production of lactic acid by fermentation. With insufficient peristalsis poor absorption often exists, and it is in such conditions that I have frequently been able to demonstrate an excessive total acidity of the gastric contents, owing to the presence of both hydrochloric and lactic acids. Thus in gastrectasia of the Germain-Sée type, the stomach contains not only an excess of hydrochloric acid, but usually also an excess of lactic acid, and the gastric mucous membrane is incessantly subjected to the action of highly irritating contents. When dilatation is associated with stenosis of the pylorus from a malignant growth, hydrochloric acid is present in small amounts only, or is entirely absent. In some of these cases I have found very large quantities of lactic acid, usually with other organic acids, making a total acidity far in excess, while other cases were characterized by a very small amount of lactic acid and a faint total acidity.

Chronic catarrhal gastritis, resulting from whatever cause or causes, renders lactic-acid excess liable. In cases of atrophy of the gastric glandules and a consequent absence of gastric juice we would expect to find lactic-acid fermentation at its height, but such is not the case. In four cases of this nature that I reported the gastric contents were almost invariably neutral in reaction unless acid foods had been taken. In other cases, as yet unreported, lactic acid was found in moderate amounts, and the total acidity was always subnormal.

Of all the factors entering into the production of lactic-acid excess, none is so potent as improper diet. The ingestion of mixed starchy milk puddings at the end of a hearty meal results in the formation of so much lactic acid that its fermentation is perpetuated throughout the entire period of digestion, to the hindrance of proper change of the albuminoids and starches. The common custom of eating pastries, sweetmeats, ice-cream, cakes and cheese after having eaten thick soups, meats, fish with various sauces, entrees made with cream, salads and salad dressings, is to blame for many digestive disorders.

Drinking milk at meals and between meals, or living on milk alone, not uncommonly lights up the lactic-acid habit in the stomach, and cases of this habit illustrate the baneful effects of persistence in a diet that is not regulated by the condition of the gastric chemistry.

I cannot emphasize sufficiently the importance of lowered general health in the establishment of a gastric state in which the over-production of lactic acid is made easy. When the blood is reduced and the nervous and muscular systems are very much enfeebled, the functions of the stomach are imperfectly performed, because the organ is supplied by impoverished blood, its innervation is disturbed, and its musculature is weak. Therefore under the many indiscretions in diet that are inevitable as the average individual lives and as the average cooking prevails, with all its death-dealing virulence, gastric chemistry is necessarily disturbed.—*Med. News.*

## SURGICAL SUGGESTIONS.

*Superficial Excoriations* produced by braces or adhesive plaster are readily healed by the free application of the sub-iodide of bismuth. It is a fine red powder with unusual absorbent and antiseptic powers.

*Potassium Permanganate* solution (1 to 1000) is an excellent local antiseptic for the urinary tract. One of the advantages it has over other agents is that so long as pus or other excrementitious matter is present the fluid will be changed in color from the de-oxidation. For acute gonorrhœa it is particularly applicable, and in the preparation of cases for operation.

*Multiply Operations at One Sitting.*—For the past two years I have frequently done several

operations at one sitting. I have repeatedly repaired the cervix and perineum and curetted the cavity of the uterus before opening the abdomen for the removal of pus tubes, and afterward stitched the fundus of the uterus to the anterior abdominal wall with silkworm-gut, and have thus far seen no cause to regret doing so.—*Cushing.*

*I Hold* that to put up all injuries of the elbow at right angles is a dangerous routine practice, as is shown by the number of cases of deformity that have been recorded, and by the very grave prognosis given by all our standard text-books.—*Frere.*

*A Mild Degree* of albuminuria (or nephritis), especially if recent, is not a contra-indication to the use of chloroform. Even in the presence of advanced and extensive renal changes an anæsthetic may be employed, provided the patient or the family be advised of the additional risk.—*Long.*

*Senile Gangrene.*—So long as the gangrene be confined to one or two toes one may wait and abstain from other than general antiseptic treatment, with high position of the limb, allowing the part to be spontaneously thrown off. If the process extends, however, to the dorsum or sole of the foot we should amputate above the condyles of the femur. Amputation below the knee is almost always followed by gangrene of the flaps and brings the patient in danger.—*Powers.*

*Be Prepared* to go ahead the moment patient is unconscious; don't waste either the anæsthetic or the patient's forces while you are threading needles.

*Find* the source of hæmorrhage in gunshot wounds of the abdomen before you begin sewing up the wounds in the intesines.—*Dalton.*

*Gall-stones* call for operation when they cause frequent, repeated or long-continued trouble. Operation is required for empyema of gall bladder, and for hydrops too, if it causes much annoyance. If cystic duct is closed, the gall bladder inflamed, or its contents much altered, a temporary biliary fistula should be made.—*Czerny.*

*Golden Rules.*—Never tap a suspected renal tumor through the abdominal parieties, *i.e.*, through the peritoneum. Never think lightly of any ulcer of the tongue or lips of a patient beyond middle life. Never permit a healthy wet-nurse to suckle a syphilitic child, or child of syphilitic parents Never neglect to warn your patient about his eyes in treating a "first" attack of gonorhœa. Never forget many gleets are due to slight contractions of the canal and may be cured by a steel bougie.

*Creosote Subcutaneously.*—In a large number of cases antisepsis in tuberculous phthisis can be secured by slow injection of pure creosote in olive oil, sterlized by exposure to a temperature of 110° F. Thirty grains of liquid can be introduced beneath the skin in an hour.—*Gimbert.*

*Empyema.*—In the greater number of cases the resection of a part of a rib—usually about an inch of the middle third of the sixth or seventh—is incomparably the better plan; it should not occupy more than ten minutes, the peeling off of the periosteum occuping the greater part of that time, it gives ample space for emptying and washing out the cavity, and a new lamina of bone is soon secreted by the unjuried periosteum to repair the loss. But there is one precaution: keep the finger in the opening lest the pus escape too rapidly and the patient die from syncope.—*Cadogan-Masterman.*

*Fractures.*—The immediate application of a plaster of Paris dressing to a recent fracture is wrong, because the healing of a fracture with deformity can be prevented only by a perfect diagnosis in which the form of the fragments and their position, as well as the possibility of interposition of muscular tissue between them, must be considered in order to institute proper treatment. —*Helferich.*

*Balsam of Peru* ranks next to iodoform in the treatment of tubercular affections of bones and joints, and if the latter remedy for any reason cannot be employed, or has failed in effecting the desired result, it should be given a fair trial if operative treatment is not urgently indicated.—*Senn.* —*Med. Rec.*

---

LOCOMOTOR ATAXY TREATED BY PHOSPHATIC INJECTIONS.—James Cagney writes to *The Lancet*: At the risk of prolonging an undesirable discussion, will you permit me to say a few words on the subject of Dr. Forbes Winslow's letter in *The Lancet* of Nov. 28th? Dr. Winslow informs the profession that a cure for locomotor ataxy is to be found in the injection of phosphate of soda "in combination." He was led to adopt this unpromising expedient by the rumor of certain proceedings in Belgium, and he recommends it on the strength of his experience in a single instance. The case reported by Dr. Winslow calls for no further comment. It has been adequately dealt with by your correspondent, Dr. McNamara. Dr. Winslow's postscript adds but little difficulty. The fact that he took the unusual course of obtaining certificates of diagnosis suggests that his own mind was not made up. The certificate from the Belgian physician is applicable only to a *woman*—the form of the French word *atteinte* shows this—while the subject of the marvellous cure was a man. The certificate of Sir Andrew Clark deserves all respect and is very valuable, as it is probably a rare document; but it cannot be taken in lieu of the usual statement of symptoms.

There remains no room to doubt that the case was one of mistaken diagnosis; and of this, as most neurologists will agree, no better proof is needed than the result—a complete cure, as attested by the "consultation in Belgium." It is of greater interest to inquire upon what grounds the expectation of a cure was based. I have made a diligent search for the record of these proceedings in Belgium. The most authoritative report seems to be that presented by M. Crocq, of Brussels, to the Academy of Medicine, at Paris, on Sept. 13th, 1892. It is short, and may be read with profit:

"1. The subcutaneous injection of a 1 in 50 solution of phosphate of soda in cherry laurel water produces no reaction, local or general. 2. The injection upon nervous patients produces a powerful nervine effect. 3. This agent acts only as a nervine tonic, and its effects are either curative or palliative. They are curative only in cases of functional cerebro spinal trouble; they can only be palliative in organic disease of the nerve centres. 4. The advantage of this method over those of Brown Séquard and C. Paul is in its simplicity. It is within the reach of everyone." (*Revue Médicale* [Louvain], Nov., 1892; *Bulletin de l'Académie de Médecine*, 1882, p. 439.)

This notice proves that the ground has already been covered, and there is no need of further experiments. The first paragraph robs the "method" of its air of mystery—a very desirable thing. The third disposes of its pretensions to cure locomotor ataxy. It confirms the natural expectation that the effect of injecting phosphate of soda is that which the drug is well known to produce when administered by the mouth. Some allowance must be made for the psychical influence of the hypodermic needle, and we are too apt to assume that organic disease implies the absence of a functional element, whereas, indeed, it renders its presence more probable. The fourth paragraph is instructive, and perhaps supplies the key to the matter. The "method" is there brought in line with certain practices that have become familiar. The injection of highly complex organic substances of which we know nothing for the cure of equally inscrutable diseases is a thing intelligible if not defensible. It requires on the part of its exponent a mind of a mediæval tendency combined with therapeutic enterprise and a faculty for ignoring the acquisitions of science. Such talents are common. Working in this direction, they throw back on a species of pharmacy which only requires an incantation and the magic circle to give it the genuine impress of a very respectable antiquity. The art, however, as applied to a disease whose pathology is well known, is demonstrably out of place. But when for the mystic agent there is further substituted a simple inorganic substance, such as phosphate of soda, it is difficult to detect a spot where credulity can lurk. Meanwhile the unfortunate subjects of locomotor ataxy are athirst for information; they will clutch at any straw. Already they are clamoring for phosphate of soda, and in many instances will have it. Under these circumstances, I trust that the information I have quoted will enable the practitioner to moderate the hopes of his patient, and in the last resort to officiate himself at the rites so vaguely sketched by Dr. Winslow. So may we pass more speedily and with least discredit through the throes of the latest discovery.

A New Treatment of Mammary Abscess.—Tweedy (*Medical Press and Circular*) adopts Weber's method of treating mammary abscess. An early and free incision is made in the breast, radiating from the nipple, and situated at the most dependent part of the abscess. The finger is then inserted into the wound and the gland structure broken down. This manipulation, it is stated, will have no bad effect on the healthy tissue. By this process several new cavities will be found, and these, in turn, are to be opened by an incision similar to the first, and the whole thoroughly douched with some antiseptic solution.

The membrane lining the several cavities is to be curetted, and the *debris* removed by a second douching. Strips of gauze sufficient to fill every interstice of the abscess are to be steeped in a one-per cent. solution of carbolic acid, and inserted by means of a long sinus forceps and probe. A large flat sponge is then placed on the breast and tightly bandaged thereto for twenty-four hours. After this period the dressings are removed, and without further irrigation the cavities are again packed, the sponge and bandage being re-applied as before.

On the third day process is repeated. In the fourth dressing the gauze packing is dispensed with and the incisions are drawn together and marked antiseptically; the sponge and bandage are re-applied. This last process is repeated every twenty-four hours until healing is complete; this usually takes place about the tenth day. In one of the author's cases the whole process was accomplished without the aid of anæsthesia. In only one of his cases was it necessary to make a second incision. The incisions are never longer than is necesary to admit a finger. Iodoform gauze should be used for packing the wounds. The author only having treated five cases, cannot say definitely what portion of the above treatment is essential, but he is strongly inclined to the opinion that curetting can be safely dispensed with.—*Therap Gaz.*

The Morbid Anatomy of Akromegaly.—Squance, (*British Medical Journal*) has reported a case of akromegaly in a woman, thirty-five years old, who presented intense neuralgic pains through the temples and at the top of the head, and also

shooting pains at the back of the neck, accompanied by general languor and inability to apply herself to any prolonged occupation. Her memory was defective and her articulation slow and deliberate. There was no complaint of impairment of vision. The hands, the feet, the malar bones, and the maxillæ were enlarged. Diabetes developed, and, later on, pulmonary tuberculosis, to which the woman ultimately succumbed. Only a partial post-mortem examination was permitted. The head was increased in size, the face elongated ; the malar bones were enlarged and prominent ; the superior and inferior maxillæ were considerably hypertrophied, though the lower jaw did not project in advance of the upper. The eyelids were thickened and the supra-orbital ridges enlarged. The nostrils were considerably increased in size and very broad, and the ears were greatly hypertrophied. The hair was scanty and coarse, and the skin harsh and rough in appearance. The hands and feet were symmetrically enlarged ; the nails were broad and the big toes large in proportion. The shafts of the long bones were not only considerably thickened, but they were also roughened, approximating the male type. The thorax was considerably enlarged, especially in the upper part ; the ribs were uniformly hypertrophied, as were also the clavicles. In the lower cervical and in the upper dorsal region there was a certain amount of prominence of the spine. On opening the skull, the frontal, parietal, and occipital bones were found to be thickened, the hypertrophy principally involving the diploe. The brain weighed forty-six ounces and its membranes were normal. The pituitary body was considerably enlarged, and the canal between it and the third ventricle was patent. The optic nerves immediately in front of the commissure were much flattened, especially the right, which was exceedingly soft and tearing easily. The thyroid gland was enlarged and weighed nearly two ounces. The thymus gland was persistent, the left lobe being hypertrophied and passing behind and to the left of the manubrium sterni. The gland measured nearly two inches in length and weighed one ounce. Its surface was lobulated, its consistence pulpy, almost diffluent, and its color a brightish-pink.—*Med. News.*

Carbolic Acid in Full Strength in Surgery.—Dr. Oscar H. Allis, of Philadelphia, in a recent paper before the Philadelphia Academy of Surgery, draws attention in a suggestive way to the use of pure carbolic acid in the after-treatment of surgical wounds. He was led to investigate the effects of the application by the successful experience of Dr. B. Gardner, of Bloomsburg.

Dr. Allis thus describes the method, which had its origin in an accident : "When Lister introduced his paste Dr. Gardner used it quite extensively. After an application to quite an extensive wound surface he was surprised to find it turn white, and that he had used pure carbolic acid. He therefore immediately washed the surface and dressed the wound, keeping it open until oozing had ceased. The case did so well that it inaugurated with him a line of treatment that he had extensively employed. As a typical application let me take an amputation of the female breast. After its removal and the ligation of the bleeding vessels carbolic-acid crystals, dissolved in sufficient water for solution, are applied with a sponge to all parts of the cut surface. Immediately upon the application of the acid the tissues turn white, which is a guarantee of its thorough action. The wound surface is then washed with water previously sterilized by boiling, and approximated with provisions for drainage This is especially necessary, as for twenty-four hours the oozing must find ready exit. During the first few days there is slight local hyperæmia along the border of approximation, but this declines without crisis."

It is claimed for carbolic acid applied in officinal strength, 1. That no systemic absorption attends its use, and hence no danger, no shock. 2. That it is a local anæsthetic. Hence there is not as much pain after the operation. 3. That it is in a measure a hæmostatic, acting especially upon the capillary vessels. Although the use of the acid as a direct application to wound surfaces, diseased membranes, and fungoid granulations is not new, we have presented to us some thoughts on its extended employment which may perhaps be profitably directed into practical channels. The good results of its employment in the open methods of treatment of hydrocele are suggestive and instructive in this instance. In intestinal surgery it also has its given range of application. Intra-abdominal stumps are often tipped with the pure acid with good results.

While it is not considered necessary in ordinary operative wounds, aseptically treated, it would seem to be proper in those cases in which thorough antisepsis is otherwise doubtful or impossible. Against the claim that it produces necrosis are cited numerous cases in which after the deeper tissues were whitened with the characteristic coagulation the wound was closed, healing by first intention. It may yet appear that pure carbolic acid has a rôle of its own in just those exceptional cases ; at least it is deserving of a cautious trial in proper hands.—*Ed. Med. Rec.*

The Etiology of Acute Articulur Rheumatism.—Sahli, *Deutsche Archiv für klinische Medicin*, contends that although the infectious nature of acute articular rheumatism has not yet been demonstrated, such an etiology is highly probable from the point of view of modern general pathology. In favor of such a causation are the acute

febrile course, the local involvement of the joints, and the tendency to complication by endocarditis and inflammation of serous membranes. Sahli reports the case of a girl, sixteen years old, with a second attack of acute articular rheumatism, complicated by endocarditis, pericarditis, bilateral pleurisy, and, finally, left-sided pneumonia, death suddenly taking place with cyanosis, perspiration, and heart-failure.

At the post-mortem examinations vegetations were found not only upon the leaflets of the mitral valves but also upon the aortic semilunar segments and upon the lateral leaflet of the tricuspid valve ; the pulmonary leaflets were free. Inoculations were made upon agar and gelatin from the endocarditic excrescences, from the enlarged bronchial glands, the synovial membrane and the contents of an affected knee-joint, the thickened pericardium, the inflamed pleura, and from blood from the heart. In almost all instances pure cultures of a single organism developed, which corresponded in all essential characters with the staphylococcus pyogenes citreus. Animal inoculations yielded negative results. The conclusion is expressed that the organism found is to be looked upon as the cause of the disease. It remains to be determined whether this organism is a distinct one or a modified form of the staphylococcus pyogenes citreus. It seems possible (and the possibility is supported by evidence) that acute articular rheumatism may be caused by attenuated pyogenic cocci, and future investigation must determine whether a single or several species of organisms have an etiologic relation to the disease. The bacteriologic examination in the case reported indicates that the so-called complications of acute articular rheumatism (endocarditis, pericarditis, pleuritis) were etiologically related to the primary disease, of which they were thus not complications but merely localizations. In numerous other cases of acute rheumatism subsequently examined, staphylococci were also found in the contents of affected joints and in the blood.—*Am. Jour. Med. Sc.*

The Sedative Action of Duboisine in the Insane.—The following conclusions are based upon an extensive experience of this drug, given in continued doses of from 2 to 4 milligrammes :

1. Duboisine reveals itself as a marvellous sedative, capable of combating, always and in all cases, maniacal and melancholic agitation, often substituting an absolute tranquility for the most violent excitement or anxiety ; its action presents itself in two degrees, the one incomplete, consisting of a simple attenuation of the exaltation, the other complete, and characterized by the total disappearance of the latter for a time more or less long.

2. The calm induced does not attain its maximum all at once ; sometimes this does not occur till the second or third day.

3. Once produced, the calm is maintained very regularly so long as habituation does not manifest itself.

4. The more complete sedative action most often persists one or several days after stoppage of the drug, and often it happens that the calm is prolonged over a fairly long period.

5. In the intermittent and remittent forms of insanity, it is capable of reducing the duration of the attacks and of spacing them out.

6. The sedative action in all its degrees has been in general, particularly in the first days of treatment, in inverse proportion to the length of time that has elapsed since the administration of the remedy ; hence the advantage of giving the drug in two doses daily.

7. The complete action occurs much more frequently in chronic than in acute mania, and, on the contrary, in acute than in chronic melancholia, and in a general way, in mania than in melancholia.

8. In general paralysis the complete action is less frequent than in chronic mania and acute melancholia, but more frequent than in acute mania and chronic melancholia, but, on the whole, general paralysis shows itself more sensible to the influence of the drug than the insanities.

9. Habituation occurs very promptly in the insane, is established very suddenly, and is not overcome by increasing the dose.

10. Tolerance is more frequent and more rapid in general paralysis, is more frequent in melancholia than in mania, and does not appear in the chronic forms of insanity.

11. The incomplete action is less frequent in general paralysis than in other forms of insanity.

12. In a general way it may be said that the drug is more active in general paralysis than in the insanities, in mania than in melancholia, in chronic than in acute mania, and in acute than in chronic melancholia.

13. Owing to its action on the stomach, it is well to administer the drug at times the most removed from the two principal meals.

14. It has, unfortunately, a very damaging effect upon the general nutrition, particularly when long continued.—*Glasgow Med. Jour.*

Endocarditis Gonorrhœica.—Leyden, *Deutsche. med. Woch.*, relates the following case in a man, aged twenty-two. In April, he had swelling of one knee and both ankle-joints, and when admitted a month later the knee and left ankle-joints were still swollen. The clinical picture was characterized by (1) the presence of aortic and mitral disease ; (2) irregular temperature with rigors ; (3) repeated vomiting ; (4) the development of acute nephritis ; and (5) the malignant

course of the disease. The patient died in three weeks' time. One of the aortic cusps was destroyed by ulceration and covered with vegetations. There was a large mass of vegetations on one of the mitral cusps. There was only one breaking down infarct, and that in the spleen. The kidneys were swollen, hyperemic, and contained microscopic foci of softening. The myocardium also contained similar foci. From the literature of the subject here detailed it appears that (1) the relation of gonorrhea to endocarditis is established; (2) a portion of such cases have a chronic course, and some even tend to recover; and (3) others have a malignant course. The bacterialogical problem in gonorrheal endocarditis has hitherto been unsolved. Some investigations have shown that the streptococcus was present in the valves, but generally they have been inconclusive. This case thus provided the opportuity of settling the question of the pathogeny of this endocarditis. The blood examined during life gave negative results, as also that taken from the auricle after death. The fibrinous deposits were examined bacteriologically by Michaelis. Gonococci were demonstrated (1) by their shape; (2) by their presence within the cells; and (3) by the facts that they they were discolorized by Gram's method, and very easily by alcohol and lavender oil. No other micro-organisms were found. That no cultivation experiments were made is not looked upon by the author as any real objection, as the above-named characteristics are sufficient. Although the settling down of the gonococci upon the endocardium is remarkable, it is not very surprising, as blood serum is a medium well suited to these micro-organisms.—*Physician and Surgeon.*

THE SURGICAL TREATMENT OF CERVICAL THORACIC AND ABDOMINAL ANEURISM.—In the *Annals of Surgery*, September. 1893, Nancrede submits the following conclusions: Cervical aneurism: (1) All methods should be supplemented by recumbency and diet. (2) Proximal compression, when feasible, should always be tried, and where the arterial coats are seriously diseased should supercede ligation. (3) "Needling" should supplement pressure when the case is progressing rapidly; possibly it is advisable in all cases suitable for compression, and is certainly to be employed where this method fails in cases with highly atheromatous vessels. (4) Proximal ligation, having been rendered much safer of late by the use of antiseptic precautions, less absorbent ligatures and the avoidance of all injury to the arterial walls by employing the "stay knot," is permissible when the walls are relatively sound until experience decides whether or not needling is superior in its results. (5) Since recurrence after proximal ligation almost certainly results from non-deposition of white thrombi, and their maintenance in contact with the aneurismal wall from lack of proper changes of its lining, "needling" is then indicated. (6) Where the location prevents proximal arrest of the blood current, "needling" is the best operation; possibly distal compression—rarely feasible—might aid in the deposition of thrombi. (7) Although occasionally successful, the indications for the permanent introduction of such foreign bodies as wire, horse-hair, etc., into aneurismal sacs are so much better met by "needling" that such proceedure had better not be adopted. (8) The modern revival of the older method of extirpation of aneurisms should not be attempted for spontaneous cervical aneurisms.—*Univ. Med. Mag.*

POISONING BY POTASSIUM CHLORATE.—The case of a shoemaker, aged eighteen, who died from the toxic effects of chlorate of potassium, is recorded by Dr. Länderer, of Berlin. The patient was ordered a gargle for tonsillitis, containing about half an ounce of the salt in a glass of warm water. He swallowed the whole in two drinks within half an hour. The first effects of the drugs were weariness, thirst, giddiness, followed rapidly by alarming symptoms, arising presumably from the action of the salt upon the blood, namely, acute anæmia, dyspnœa, cyanosis, persistent vomiting of a greenish fluid, pain in the hypochondria and around the umbilicus, with icterus. Hepatic, splenic, and renal symptoms then set in. During seven days' illness the urine eliminated did not exceed three and one-half ounces. Albumen was present from beginning to end. From the third day epithelial casts were sparingly present, while methemoglobin casts were found in great numbers from the very first day, and disappeared gradually with the clearing of the urine. The spectroscopic examination of the filtered urine gave the methemoglobin spectrum. Länderer considers:

1. That the poisoning is simply the action of the drug, which produces changes in the physiological condition of the blood.

2. Acute nephritis is not necessarily present in all cases; but where the illness is protracted it is seldom absent, owing to the mechanical irritation of the renal epithelium.

3. The icterus is partly hematogenous.

4. The vomiting, constipation, etc., are probably due to the fine gastric ulcers produced by capillary emboli, formed by the methemoglobin clots.

5. The cyanosis is due to the insufficient arterialization of the blood in the lung.

6. The best treatment in such cases, within twenty-four hours after swallowing the salt, would be venesection, followed by infusions of sodium chloride, or, better still, transfusions of defibrinated blood.

7. Internally potassium chlorate should not be used, more especially in children. The quantity

of the drug should be carefully limited in gargles, so that small doses may be taken in case of accident.—*Med. Press and Circular.*

Intra-Intestinal Injections of Hot Water for the Relief of Shock, Particularly from Hæmorrhage.—Rutherford, *Rhode Island Medical Monthly*, has reported the case of a boy, nine years old, who was accidentally shot in the thigh. There was not much bleeding from the wound, but the leg soon became badly swollen and discolored. Examination showed that the swelling and discoloration arose from an extravasion of blood into the tissues, and it was decided to cut down upon and tie the bleeding vessel (the femoral artery), as the almost bloodless condition of the boy forbade the performance of amputation. In the course of the anæsthetization the pulse began to grow weaker, and doubts were felt as to the possibility of proceeding with the operation. In the hope of stimulating the patient a quart of hot water containing a small quantity of salt was pumped into the rectum by means of a catheter introduced deeply and connected with a Davidson's syringe. The pulse at once grew stronger and the skin assumed a more healthy appearance. The pulse again weakening after the lapse of fifteen minutes, two quarts of hot saline solution were injected into the rectum, the tube being introduced for a distance of seventeen inches. The presence of the fluid in the bowel caused an appreciable fulness of the abdomen, which rapidly subsided as the fluid was absorbed. Toward the completion of the operation an injection of two quarts of water had again to be made, the tube being introduced for a distance of twenty-three inches. The pulse now became strong, and the patient presented a better appearance than at the beginning of the operation. He lived for fourteen days, ultimately dying from septic infection and exhaustion consequent upon gangrene.—*Med. News.*

Interstitial Nephritis.—If the kidneys are overtaxed by a highly nitrogenous diet as a man passes forty, they begin to tire and contract, and we have interstitial nephritis. They are usually people who eat meat three times a day. Nine-tenths of these patients have an enlarged ventricle of the heart; but before we find any evidence of such enlargement we will find a very sharp accentuation of the second sound of the heart; the radial pulse is very hard, very tense, and very full. If a patient beyond forty years of age rises at night to pass urine more than once, or even once habitually, and there is nothing to account for in the way of irritable bladder, stricture, or cystitis, it is one of the most constant symptoms of interstitial nephritis, although it is not always present. Take the twenty-four hours' quantity to obtain the specific gravity. Place the patient upon an ordinary mixed diet, and if the specific gravity of the urine is 1010 to 1014 go further and examine for urea. If we find, instead of ten grains of urea to the ounce, seven, eight, or six, the disease is advanced, and we have something tangible to show that the kidneys are incompetent; we have a lowered specific gravity and a lessened quantity of urea; the patient rising at night; we have an accented second sound of the heart, and we have interstitial nephritis in such cases whether there is albuminuria or not. It is very difficult to find hyaline casts by ordinary methods in interstitial nephritis. If the urine is concentrated you may find them.—*Med. Brief.*

Chest Pains.—These may be due to:

1. Intercostal neuralgia; tenderness at points only.

For neuralgia strap the chest and give arsenic, with an occasional mercurial purge. Quinine acts best after mercury.

2. Rheumatism of the fascia, the whole region being tender.

Chest rheumatism is connected with beer-drinking. The salicylates are useless; alkalies of doubtful utility. The best remedy is water drunk in enormous quantities.

3. Neuritis; circumscribed linear tenderness.

4. Acute pleurisy; chill, fever, friction sound.

5. Dry pleurisy; very common, relieved so surely by adhesive straps that this relief confirms the diagnosis.

6. Neuroma.

7. Aneurism; may not cause pain, even if large.

8. Cancer.

9. Ataxia.

10. Spinal disease.

11. Bronchitic pain; calls for strapping and opium.

12 Myalgia; relieved by straps.

13. Mitral disease; rarely painful.

14. Aortic disease; generally painful.

15. Dyspepsia; diffusible, radiating pains.

16. Diabetes mellitus, in later stages; pain at centre of sternum. A bad omen.

17. Zoster; pain may precede eruption for days.

18. Angina pectoris.

19. A pseudo angina, occurring in women; not relieved by nitrites, but instantly by chloroform.

20. Phthisis.

21. Syphilis.

22. Gout.

—H. M. Brown, in *Cin. Med. Jour.*

Diagnosis of Breech Presentations before Labor.—Pinard (*Rev. Médicale*) lays great stress on tenderness of the fundus. In some pregnant subjects who have passed the sixth month, pressure of the hand on the fundus causes sharp pain. Sometimes the patient feels pain without the part

being touched. In both cases the evidence of breech presentation is strong. This pain, or tenderness, is solely due to the pressure of the fetal head, which is harder and more bulky than any other part of the fetus, and distends the upper segment irregularly. That segment is not naturally designed to receive the head. Pinard especially notes that the pain disappears after version. The tenderness is influenced by the size of the head, the amount of liquor amnii, and the flaccidity of the uterine walls. This tenderness of the fundus is present in 70 per cent. of breech presentations. —*Br. Med. Jour.*

The Treatment of Blepharitis Marginalis by Hydrogen Dioxid.—The treatment of blepharitis marginalis is often unsatisfactory and disappointing. Relapses frequently occur, and remedies seem to loose their effect, and at times even to act unfavorably. It is true that much of our success depends on the faithfulness of the patient or of his parents in carrying out the treatment at home. Much also depends on the physical condition of the patient, and this should always receive careful attention. Anomalies of refraction seem to play an important role in perpetuating the disease, and these also should be carefully corrected. But aside from these considerations, the treatment is often prolonged, taxing the patience of the physician as well as of the client.

The remedies prescribed for the relief of this disease are numerous, and all have met with more or less success. During the past year I have used with great satisfaction hydrogen dioxid in the treatment of this disease. I was led to its use by some experiments in cases with suppurating rings around the cilia. After removing the crusts and applying the dioxid, there was a bubbling and boiling effect for a while, which soon subsided, leaving the ulcerated surface whitened, as if a solution of silver nitrate had been used upon it. The application was almost painless, and the lid was left clean and free from pus or scales.

These experiments were followed by a general adoption of this method in nearly all cases, but especially in those with ulcerations along the lid-margin. My experience in a large number of cases justifies me in recommending this treatment, so that others may give it a trial. The manner of its application is as follows : The larger crusts should first be removed or scraped off, after having been softened by tepid water. Then a little cotton is wrapped tightly around a Japanese tooth-pick, which is dipped into the dioxid in a little dish. The cotton is then swept over the entire edge of the lid. The characteristic bubbling will follow, and the application is repeated until the bubbling ceases. If care is taken, and the cotton is not too freely saturated, none will come in contact with the conjunctiva. In order to obviate all pain, a few drops of a 4 per cent. solution of cocain can first be instilled into the eye. This treatment should be repeated every day. The remedy is one that any intelligent person can apply at home, and one from which there is no danger. My experience with the use of salves and ointments is somewhat disappointing. They often cause unaccountable irritation, and on this account are unreliable. In the method advised a clean remedy is used, which acts promptly and efficiently. By its chemic action it destroys the germs which cling so closely to the edges of the lids. It is not a cure all or a specific, but I certainly have had the happiest results from its use.—*Med. News.*

Fisher, of New York, in a recent article on the treatment of high temperature in pneumonia of children (the post-graduate) favors most emphatically hydrotherapy in reference to antipyretic drugs. He advises the administration of a stimulant and good whisky before each bath, and states that this stimulation is not contra-indicated, even though the child has delirium, the quantity used depending upon the condition of the heart and the age of the patient. The gist of his conclusions is as follows :

1. That cold water is the best antipyretic used to-day.

2. That it is easily obtainable, and is, therefore, adapted to all classes of cases, both rich and poor.

3. The mode of application is so simple that it adapts itself to the hospital, and equally as well to private practice; and can be applied without any distinct training.

4. Cautiously given, it stimulates.

5. Carelessly used, and longer than required, it depresses and will produce sub-normal temperature.

6. The rectal temperature should be taken, and the bath at once discontinued when temperature falls to 101°F., as it will then continue to fall.

7. That a stimulant administered before the bath may be necessary, and should be given where there is a feeble heart.

8. That the temperature indicates when to commence and when, also, to discontinue the hydropathic treatment.

9. Unnecessary blanketing after the bath is injurious and will produce copious perspiration which, I believe, weakens the patient.

10. The temperature of them should always be between 68° and 72°F.—*Med. Mirror.*

There are now fifty-five towns and cities in England which destroy their garbage and solid refuse by burning, and 570 furnaces are employed for this purpose. In many cases the heat from these furnaces is used to produce steam, and the power is employed in pumping water and running electric light and power plants, and other purposes.

# THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & CO., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, FERBUARY, 1894.

The LANCET has the Largest Circulation of any Medical Journal in Canada.


## SALICYLATES IN ACUTE RHEUMATISM.

Amongst the various remedies for the treatment of acute articular rheumatism the salicylates hold their own. They have much to recommend them, notably the rapid alleviation of pain, and fall of temperature. The latter is of considerable importance to the attending physician, the former of more consequence to the sufferer.

The question as to whether they lessen the chances of cardiac complication, the most grave side of rheumatism, seems not to be definitely settled as yet, though we are inclined to think the balance of opinion is in their favor in this respect. It is generally conceded that we have considerably advanced in the therapeutics of rheumatism since the days when Sir Thomas Watson being asked, "What is good for rheumatism?" answered, "Six weeks." If then the salicylates do no more good than to shorten the period of acute disease, they must, in that proportion, at least, lessen the liability to endocarditis.

Statistics can be made to prove almost anything, and the tables, and there are not a few of them, which go to show that salicylic acid and its congeners have no influence on the cardiac lesions, are, we believe, faulty; and chiefly so for the reason that they have been all made from hospital cases, which notably show a large number of heart complications. Hospital patients are usually not put upon the treatment for several days after the accession of the disease, they are badly nourished, badly clothed, and suffer from bad environment, previous to their removal from their poor homes to the hospital ward; all of which reasons make it pretty clear why they should suffer more than private patients placed under exactly opposite and more favorable conditions from the inception of the disease.

If, however, a physician of large experience in private practice, will look at the matter carefully, we believe he will conclude that the use of the salicylates does lessen heart complications.

Again, this group of remedies have had the onus of giving a greater number of relapses than other, and especially the alkaline plan of, treatment. The fact, we believe, is true, but the reason is obvious. Owing to the much earlier subsidence of the fever, disability and pain, under the salicylates, both patient and physician are lulled into a false sense of security, and the necessary precautions, especially *rest in bed*, are not so rigidly taken, with the natural and inevitable result of more apparent relapses. The patient who has had the agony of the old six weeks of rheumatic fever, is so terrified of a renewal of his dolors, that he is extremely careful not to take any liberties with himself in his early convalescence; besides he is so anæmic, weak and worn, that he has no inclination to get out of bed and move about. When, however, at the end of from three to five days, under the salicylates, the fever, pain and restlessness subside, the patient, not so worn and weak, is altogether prone to take liberties with himself, not looking upon his attack as being so very grave after all; while the medical attendant is, unless strictly on guard, liable to allow liberties that he would not have allowed had the patient dragged through six or eight weeks of weary and painful illness.

It way be put down as a fact, that relapses will not be more frequent than under other plans of treatment if the convalescence is properly guarded, and the salicylates continued in less quantity, for from ten to fourteen days after the subsidence of the acute attack.

To get the best results from these drugs, it is necessary to give them in large doses at first. They are very rapidly eliminated, and he who hopes to get proper results from say 30 grains sod. sal. at intervals of six hours will certainly be disappointed. It should be given in say 20 or 25 grain doses every two hours for four doses, then

every four hours for four doses, and then every six hours, till the disease yields, and then continued in quantities of from 45 to 60 grains in the day for a fortnight. Rarely, cases are found which do not yield in from three to five days. The treatment should then be discontinued as inapplicable to the particular case under observation, and some other plan, preferably the alkaline plan adopted. As to the preparation used, the sodium salt has the field. There is no evidence that any other preparation is superior to it, and no other is perhaps so universally well borne by the stomach, if the drug be pure. Many of the stomach troubles arise from impure preparations, though they unfortunately do show, along with cinchonism, dimness of vision, delirium, hæmaturia, various skin eruptions, as urticaria, petechiæ and pruritus, in a few cases notwithstanding the absolute purity of the salt. It is said that the natural sodium salicylate should be preferred to the artificial, less untoward results being observed when the former is used.

## ARSENIC AS A CAUSE OF MULTIPLE NEURITIS.

Dr. Thomas Buzzard, Physician to the National Hospital for Paralytics and Epileptics, London, in a post graduate lecture on some symptoms and varieties of multiple neuritis, during a graphic lecture, reminded his hearers that alcohol, rheumatism, diabetes, septicæmia and gout were perhaps the most frequent causes of multiple neuritis, but among the exceptional causes was the administration of arsenic.

A short time before he had seen a patient, the subject of congenital chorea, who had been treated with increasing doses of arsenic for two months. The largest dose, the man said, had been seventeen drops of Fowler's solution, three times a day. While under the influence of this treatment his hands and feet became somewhat inflamed, and the soles of his feet, and especially the toes, grew red and tender. He complained of a "pricking, pins-and-needle" sensation. The cutaneous sensibility was impaired and the skin of the hands peeled. The knee jerk was abolished on both sides. His feet felt like clogs, so that he could walk but little. Six or eight months afterwards the knee-jerks were present, but "required reinforcement." The cutaneous sensibility was still impaired in the hands. His fingers were clumsy and when touched gave rise to prickling feelings. He was, however, gradually recovering. Alcohol and syphilis could be excluded as a cause of this polyneuritis which had developed while the patient was taking increasing doses of arsenic, and which had gradually subsided when the drug was discontinued. Such a case represented as it were, the artificial production of multiple neuritis, and might be usefully remembered, not only on account of showing the grouped symptoms of multiple neuritis, but as a warning against a certain danger belonging to the employment of too large doses of arsenic, or too long use of this drug.

USES OF THE OPHTHALMOSCOPE.—In the *Journal of the American Medical Association, Lancet*, a paper appeared recently by Mr. Edward P. Morrow which gives very practical emphasis to the plea urged by some for a routine examination of the eyes in all obsure cases. Mr. Morrow relates two cases in neither of which had diagnosis—or at at least a correct diagnosis—been made until the eyes were examined with the ophthalmoscope. The first case was that of a lad aged seventeen, who had had a fall from a bicycle about six months before he came under observation. The lad struck his head and remained temporarily unconscious. He was afterwards troubled with weakness more or less general, and at intervals with dizziness when walking. He subsequently had occasional vomiting, but never sufficiently to suggest that he might be suffering from a cerebral tumor. He then began to complain of his sight and Mr. Morrow was asked to examine his eyes. He found him to be suffering from intense optic neuritis with hæmorrhage in both eyes. He died a few weeks after this without any further sign than some epileptiform convulsions. At the necropsy a large glioma was found in the temporo-sphenoidal lobe on the right side. The second case was that of a young man aged nineteen, but his symptoms were such as to suggest a diagnosis long before the eyes were examined, for he first complained of giddiness and unsteadiness in walking. Subsequently he had also the attacks of vomiting and sank into a lethargic state. The discs at the time were only hyperæmic, but a few weeks later

ey were much swollen and there were numerous morrhages. He wasted away gradually and last died suddenly. At the necropsy a glioma is found on the upper surface of the cerebellum, vering the superior vermiform process and extend- g about equally over each lateral lobe. These ses are interesting in themselves, and they cer- inly point a very strong moral—viz., the duty examining the eyes in all obscure cases, especi- y if there should be occasional giddiness or vom- ng.

The Pathology of Shock.—M. H. Roger, in article on Shock in the current number of Dr. rown-Séquard's *Archives de Physiologie; Lancet*, ms up the results of his observations in the llowing terms:—"Nervous shock is the collec- e series of phenomena resulting from a violent citation of the nervous system. It is charac- rized by a series of inhibitory acts, one only of hich is constant and indispensable—namely, the rest of metabolism. Shock is more common in oportion to the development and activity of the rvous system. Circumstances which augment e excitability of the nervous system, such as notions, distress of mind, and the like, predispose shock; those which diminish it, such as narcosis id hybernation, prevent its production or render less serious and persistent. The determining uses of shock may be divided into two groups, cording to whether they act like traumatisms id poison directly upon the nervous centres, or hether they act indirectly through the sensory rves, the sensorial nerves, or the visceral nerves. rom the point of view of pathological physiology ock is characterized by a series of dynamic odifications (dynamogeny or inhibition) affecting l the tissues, viscera, and secretions. The capital enomenon is the arrest of metabolism, as a con- quence of which there is a diminution in the iantity of carbonic acid gas in the venous blood, id consecutively to this troubles in calorification, spiration, and circulation occur. The treatment nsists in opposing hypothermy and in favoring ie formation of carbonic acid gas."

Vertical Handwriting.—The relation between ne's penmanship and spine does not at first ppear to be very close, Ed. *Bost n Med. and Surg. our.;* but the direct and important hygienic effect of the position of the body required in one or another style of penmanship is well brought out by the statement and illustration of Mr. Witherbee in a recent paper. In his "Argument for Vertical Handwriting," he adds to the plea for the more legible vertical style of writing, a forcible statement of the important effect upon the child's health and figure which a more rational handwriting entails. The Vienna Commission to investigate the cause of the increase of spinal curvature and ocular trouble among school children, reported that the chief factor was sloping handwriting and the faulty positions necessitated by it. The vertical script is easier to read, easier and quicker to write, as it requires a shorter distance for the pen to travel in making each letter; for the mathematical reason that the perpendicular of a right angled triangle is shorter than the hypothenuse. There is less strain upon the eyes as the position of the body faced squarely to the desk brings both eyes at an equal distance from the paper. With the lateral position taught in most of our schools the pupil most either twist the head to one side, adding to the spinal bend, or strain the accommodation of the eyes to unequal foci. The specimens of writing and photographs which are reproduced are most telling arguments for the justice of the plea, and aside from the arguments as to ease of teaching or reading or the elegance of appearance, the simple fact that vertical writing puts the pupil in a correct position as regards the spine and the eyes is sufficient grounds for its adoption in our school systems.

Treatment of Chorea.—Eskride, *Phila. Med. News.* The medicinal treatment advocated is as follows: the patient receives as many grains of antipyrine as he is years old, and the dose is increased one grain each night until all twitching stops. At the begining of the treatment of mild cases one drop of Fowler's solution is given after each meal, and the dose increased one drop each day until the point of tolerance is reached; then the arsenic is discontinued for two or three days, or until all unpleasant effects have passed away, when the drug is again resumed at the dose reached when it was stopped. The dose is again increased one drop each day until tolerance is reached, when it is discontinued and resumed after two or three days as before. As soon as the

twitching ceases the antipyrine at bedtime is discontinued, and the patient given the syrup of the iodide of iron in from three to ten-drop doses, depending on the age of the patient. The arsenic and the iron are continued for two or three weeks after all symptoms of the disease have disappeared and the patient has regained considerable flesh.

In all but the mildest cases absolute rest in bed day and night is insisted on from the first. In the severe cases the same treatment is employed, except the arsenic is not begun until the twitchings have stopped from administration of the antipyrine, and after the second or third day of the administration the antyprine is given only once in each twenty-four hours, and the time for its administration is between eight and nine o'clock in the evening.

The precautions necessary in the giving of antipyrine are: to be witheld in cases where there is much rise of temperature, when there is cardiac weakness; and in cardiac dilatation, and never give it unless patient is in bed.

As a rule children bear larger doses of arsenic than adults, and its administration is not followed by ill effects if given as indicated above, stopping until all unpleasant effects have passed away. As a rule, it should be given for a month or more after all choreic symptoms has ceased.

Treatment of Epilepsy. — In the *Liverpool Medico-Chirurgical Jour.; Lancet*, Dr. Alexander utters a word of warning against the indiscriminate use of bromides in cases of epilepsy, a warning which, we venture to say, is not unneeded. Nevertheless in the great majority of cases no other drug is so efficacious, and it is only in rare cases that it is completely contra-indicated. Dr. Alexander has observed good results from the combination of borax with bromides, especially with bromide of sodium. In twenty-six cases in which this combination was administered the fits were arrested for several months in nine cases; in seventeen they were diminished in frequency, while in one the attacks were uninfluenced, and in another they became more frequent. But perhaps the benefits of this treatment are more uniform in regard to the mental condition of the patients. Even in those who were subject to post-epileptic mental disturbance, and in others who remained dull and stupid for several days after a fit, the mental disturbances entirely disappear. There are, however, certain drawbacks to the administration. The full dose sometimes produ gastric troubles, flatulence, and loss of appeti But this inconvenience is usually got rid of care in administering the drug after food, and caution in increasing the dose gradually. S eruptions may also be produced, especially af continuous administration for some time. T may be accompanied by intolerable itching, the eruptions are said to subside usually e without discontinuing the use of the drug. L of hair, which may be complete, is a much m serious inconvenience. Dr. Alexander's experie seems to confirm that of previous observers in gard to the efficacy of borax in certain cases epilepsy.

Nocturnal Enuresis in Children.— Fre *Neurol. Centrallbl.; Med. Summary*, states that examining children affected with nocturnal inc tinence of urine, he has discovered that about per cent. of them exhibit an associated sympt that has not previously been described, namely hypertonic condition of the crural adductors. elicit the symptom the child is seated with legs on a table; its feet are then grasped, and endeavor is made to separate them as widely possible in a horizontal direction. In a typi case the adductor spasm at first is considerab but soon yields; on releasing the feet the l spring back into contact. Spasticity also is fou in the quadriceps extensor on attempting sudde to flex the knee. The resistance here again is v pronounced at first, but quickly subsides. If fle ion be then repeated only slight extensor-tensi is observed. The deep reflexes are moderately i creased in these cases; the muscles are firm a well developed; gait is natural and no other a normality is present in the affected limbs. To certain extent the spastic condition can be ov come by voluntary effort on the part of the patien for instance, if the child be required to relax t adductors, rigidity temporarily disappears fr them, although it continues in the extensors. the phenomenon occurs in boys quite as frequent as in girls and very rarely exists in normal chil ren, Freud considers that it is independent emotion, such as fear or shame. He has been ab to exclude spastic paraplegia and epilepsy from

s cases. They have not shown any fixed rela-
nship between the intensity of the hypertony
d the degree and duration of the incontinence.
ten he has seen the spasticity persist after the
uresis has been cured. He suggests that exces-
e spinal innervation of the detrusor and of the
ural muscles may be a factor in the combinations
symptoms.

One Cigar too Many.—The late Sir Andrew
ark was so ardent in his crusade against over-
ting and overdrinking, and so firm in his belief
at in a large majority of cases diet would do far
ore than drugs, that he was a little too much
clined to take it for granted that his patients
ere self-indulgent to the ruin of their health.
mong the many anecdotes to which his views
ve rise, the following is one of the most amus-
g :—

A patient came to consult him, and was at once
erwhelmed with directions on the subject of the
fe he should lead and the diet to which he should
here. "Now, remember, only one glass of wine
each meal," the physician concluded, "and just
ne cigar after dinner won't hurt you. Good
orning. Be sure you keep strictly to the one
gar."

"One cigar!" said the patient. "But——"

"My dear sir," broke in Sir Andrew, somewhat
stily, "I must insist. If I am to treat you, you
ust follow my directions. I know quite well
ou will find it hard, but it is absolutely necessary
r your health."

The patient heaved a deep sigh. "All right,
ir Andrew; since you insist I will do my best.
ood morning."

He went his way, bnt his health did not im-
rove, and at the end of a few weeks he returned
the physician's consulting room.

"No better?" said the doctor, but have you
llowed all my directions?"

"Absolutely," replied the visitor. "I must
dmit that the cigar was rather hard work at first,
nd in fact made me feel very ill; but I soon got
sed to it, and now I rather like it."

"Good heavens," said Sir Andrew, on whom
he truth dawned, "do you mean to tell me——."

"Yes, I had never smoked before."—*Med. Rec.*

The Emergency Treatment of a Toothache.—Toothache, says John E. Weaver, M.D., in *Med. Rec.*, is a little thing in the books, but many physicians would rather meet a burglar at the door on a dark night than a call to cure a bad tooth ache of several days' continuance; a hypodermic of morphine only postpones the evil day, and usually the patient is respectfully referred to the dentist. The tooth should not be extracted while the jaw and gums are inflamed and the latter swollen, and it is the physician's duty to treat the case until the above conditions are removed. Always keep a small phial containing the following mixture: Chloroform, gtt. x.; glycerine, gtt. x.; sat. sol. ac. carbol., gtt. x.; morphine, gr. j., with a small wad of absorbent cotton. If the offending tooth has a cavity or decayed surface, saturate a small pellet of cotton with the above mixture and put into the cavity, or against the decayed surface, as the case may be—never pack the cotton in, or the more is the trouble—but have the pellet small enough to enter without crowding. In most cases, this will end the trouble. When the gums are swollen and tender, paint two or three times, two minutes apart, with a four per cent. solution of cocaine. This time of year, your patient may have been eating a good deal of fruit. The tongue and mucous membrane of the mouth are pale, stomach sour, and next day the toothache will return. Give ten grains of sub-carbonate of bismuth and ten grains of phenacetin at once, and a similar dose before each of the three following meals, with a laxative if needed, and stop all fruit for a few days, and it will not return. The same powder every two hours, with cessation of fruit eating, will stop the persistent, tormenting neuralgias so prevalent at this season.

Rest in the Treatment of Chlorotic Anæmia.—Dr. Frederick Taylor believes, *Pract.*, that the very important factor which has been too little regarded, or even ignored altogether, is physical or bodily rest. Arguments which are advanced are: an essential feature of the developed disease is a deficiency of the hæmoglobin in the blood. By saving the expenditure of hæmoglobin the patient may utilize what little she has to greater effect, and sooner arrive at a favorable balance than if her income in food, in oxygen, and in iron alone were cared for, while the expenditure in muscular exercise and the additional employ-

ment of the respiratory and cardiac functions were entirely neglected. If the heart is found to be dilated the argument is all the stronger, since this is a sufficient ground for requiring that physical rest shall be enjoined. It is a familiar fact that these cases improve rapidly when admitted to a hospital, although it cannot be urged that they are very much benefited by the air, food, or exercise which they get there. Iron should be given in the most suitable form, and a perfect action of the bowels should be maintained. Against fresh air nothing can be said so long as it does not involve exercise, either by walking or riding. In slighter degrees of anæmia, or in one already recovering, carriage exercise may be allowed, while in the severer forms the patient may with advantage be kept in bed entirely—the most certain means of keeping a patient most absolutely at rest. An intermediate prescription is that the patient shall get up only for three or four hours in the afternoon.

THE VALUE OF THE HANDS AND OF THE FINGERS.—Surgeons have often to estimate the chances of saving injured hands, *Med. News*, and the comparative values of hands and fingers. According to a scale of value furnished by the Miners' Union and Miners' Accident Insurance Companies of Germany, the loss of both hands is valued at 100 per cent., or the whole ability to earn a living. Losing the right hand depreciates the value of an individual as a worker 70 to 80 per cent., while the loss of the left hand represents from 60 to 70 per cent. of the earnings of both hands. The thumb is reckoned to be worth from 20 to 30 per cent. of the earnings. The first finger of the right hand is valued at from 14 to 18 per cent., that of the left hand at from 8 to 13.5 per cent. The middle finger is worth from 10 to 16 per cent. The third finger stands least of all in value; although like other useless members of the community, it is surrounded by riches, its value is only from 7 to 10 per cent. The little finger is worth from 9 to 12 per cent. The difference in the per centages is occasioned by the difference in the trade, the first finger being, for instance, more valuable to a writer than to a digger.

DEATH.—Dr. Geo. Henry Boulter, ex-M.P.P., aged 68 years, one of the oldest and most respected of the citizens of Stirling, died at [illegible] residence on the 18th January, after a wee[k] illness with bronchitis. The doctor gradua[ted] at McGill in 1852, and started practice in Ros[lin] where he remained a very short time, coming [to] Stirling in 1853. He started a drug store in c[on]nection with his practice. For sixteen years [he] was M.P.P., representing North Hastings, a[nd] for twenty-seven, was Lieutenant-Colonel in [the] Hastings Rifles. As a practitioner in medicine [he] was distinguished for his ability, and high[ly] esteemed by his *confrères*. In every public en[ter]prise wherein he was associated, as warden [of] Hastings County, as chairman of the High a[nd] Common School Board, as a prominent Fr[ee]mason, as a zealous adherent of the Presbyteri[an] church, as an honored physician, as a citizen, wit[h]out reproach, he was most energetic and benefici[al]. He died an honor to Stirling, and Demorestvi[lle] Prince Edward County, his native village. [He] was buried with military honors.

CHLOROFORM AS A TAPE-WORM REMEDY.—D[r.] Stephen, *Ell Raccogcitore Medico*, has recently co[n]firmed the action of the chloroform as a tenicid[e] he having been able to expel tape-worms with th[is] remedy which had resisted all other measures. H[e] employs Thompson's formula :

℞ Pure chloroform . . . gms. 4
Simple syrup . . . . gms. 03

M. Sig.—To be taken in four doses, at seve[n] nine, eleven and at one in the afternoon. At noo[n] take an ounce of castor oil.

All his patients bore the chloroform well, and [it] was even administered to children in proper pr[o]portions.

INCONTINENCE OF URINE.—In using belladonn[a] for incontinence of urine in children, Watso[n] prefers, *North-Western Lancet*, the alkaloid atro[-]pine or its sulphate. He makes a solution o[f] one grain of the atropia in an ounce of distille[d] water, and gives as a daily dose as many drops o[f] this solution as the child is years old, giving a average dose of five to eight drops. If this doe[s] not produce the well-known physiological symp[-]toms of the drug it is necessary to push it further as the trouble is seldom relieved unless these symptoms appear. It is well-known that atropin[e] is well borne by children.

FERMENTATIVE DYSPEPSIA.—Dr. Austin Flint, in an article recently read before the New York State Medical Association, very highly recommends bismuth subgallate in the treatment of fermentative or functional dyspepsia. He states that nearly every case of functional dyspepsia that has come under his observation within the last year has beeen successfully treated by bismuth subgallate. He gives this preparation in five-grain doses, either before or after meals. Dr. Flint claims that the use of pepsin and pancreatin is of little or no use in this form of dyspepsia.

POLY-PHARMACY EXTRAORDINARY.—The following prescription has been handed to us for publication as an example of the scientific combination of drugs. The *result* of the mixture, expressed in any chemical, or physio-chemical compound is beyond us.

℞—Spts. terebinth, - - - - - ʒ iv.
Ether. sulph., - - - - - ʒ iij.
Tinct. gent. co., - - - - - ʒ ivp.
Mag. sulph., - - - - - - ʒ j.
Pulv. trag. co., - - - - - ʒ iij.
Pot. nit., - - - - - - - ʒ iip.
Tinct. nuc vom., - - - - - ʒ iip.
Acid. nit. mur. dil., - - - - ʒ iip.
Bis. trisnit., - - - - - -
Lactopep., - - - - - āā ʒ ij.
Syr. acaciæ, - - - - - ad ℥ vi.—M.
Sig.—℥ js. t. i. d.

BORAX IN BLADDER TROUBLES.—There seems to be a tendency to use borax more and more internally. *The Southern Clinic.* In all bladder troubles ten grains of the powder is given several times a day. In cystitis it certainly produces good results. Torchinsky has tried it in 240 cases of typhoid fever during an epidemic, and reports 231 cases of success; 10 to 15 grains were given, and in the first three to five days the fever and diarrhœa diminished, tympanitis almost disappeared, and the stools became normal in character. As soon as this effect was produced the boric acid was discontinued and tonics given. In the later stages of the disease quinine was added to the boric acid, when there were any cerebral symptoms.

EUCALYPTUS.—I have used this drug in some two hundred cases of bronchial catarrh, and can speak highly of its virtues. *Med. Fortnightly.* It is a stimulating expectorant, and hence only finds a proper field in cases where secretion is already established. It should not be administered when the bronchial mucous membrane is in the stage of active inflammation. Though difficult of administration, I have found very few patients who objected to its use. Three were compelled to decrease its use because it produced a curious cerebral exhilaration, not unlike alcohol intoxication. The formula I use for adults is:

℞—Eucalyptol, - - - - - - - ℥ ss.
Pulv. acaciæ, - - - - - - - ℥ j.
Glycerine, - - - - - - - - ʒ j.
Syr. zingiberis, - - - -ad ℥ vj.—M.
Sig.—A dessertspoonful three times daily after meals.

I have found it of great use in the protracted bronchial catarrh following la grippe.

TABLE GIVING THE RELATIVE FREQUENCY OF THE CONDITIONS PRODUCING HEART HYPERTROPHY.—105 cases, *Johns Hopkins Hosp. Rep.*:

| | Cases. | Per cent. |
|---|---|---|
| Arterio-selerosis in . . . . | 62 | 59 |
| Nephritis, . . . . . | 14 | 13.4 |
| Valvular lesions, . . . . . | 13 | 12.4 |
| Adherent pericardium, . . . | 8 | 7.6 |
| Work, . . . . . | 4 | 3.8 |
| Tumors, . . . . . | 2 | 1.9 |
| Aneurism of heart wall, . . . | 1 | 0.95 |

TO CUT SHORT WHOOPING COUGH IN TWENTY-FOUR HOURS.—*The Illustrated Med. Jour.* says that Dr. Moncoro treats pertussis with a ten per cent. solution of resorcin, by applying the solution every two hours to the periglotteal region with a throat brush. The application is made four or five times at each seance. The theory of the treatment is that the disease is due to micro-organism and affects primarily the larynx. Cultures of the micro-organisms have been destroyed by the smallest amount of resorcin.

NITRO-GLYCERIN FOR VOMITING.—A contributor to the *British Medical Journal* recommends this nitro-glycerin as the most positive remedy for controlling vomiting he has ever employed. He has found it will control all forms of vomiting, whether in adult or infant, acute or chronic. He has found it of great service in controlling vomit-

ing of gastric catarrh, and in alcohol it acted almost as a specific. Also proved useful in controlling the vomiting of pregnancy.

D. GRANVILLE L. FOX, Slate Springs, Miss., says: I have used papine in two case of typhoid fever. In all my practice of four years I have never yet found any preparation or combination that acted so admirably as anodyne. Sometimes I combine it with bromidia and get the best of results. I expect to keep it on hand from now on, as I do not know of anything that would exactly replace it in the experience I have had with it.

URTICARIA, a disease attended by the generation of an excessive amount of acid in the alimentary tube, *Med. Summary*, is almost unfailingly cured by ten drops of nitro-muriatic acid in a wineglassful of water one hour before eating.

HALF a teaspoonful of the ammonium chloride in a goblet of water, is said to restore a drunken man to his mind and physical powers.

## Books and Pamphlets.

A TREATISE ON THE SCIENCE AND PRACTICE OF WIDWIFERY. By W. S. Playfair, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, London; Examiner in Midwifery to the Universities of Cambridge and London, and to the Royal College of Physicians. Sixth American, from the eighth English, edition. Edited, with additions, by Robert P. Harris, M.D. In one octavo volume of 497 pages, with 217 engravings and 5 plates. Cloth, $4.00; leather, $5.00. Philadelphia: Lea Brothers & Co. Toronto: Carveth & Co. 1893.

The demand for eight English and six American editions of this standard work in seventeen years, testifies to the success with which the author has executed his original purpose. His object "has been to place in the hands of his readers an epitome of the science and practice of midwifery which embodies all recent advances." He has "endeavored to dwell especially on the practical part of the subject, so as to make the work a useful guide in this most anxious and responsible branch of the profession." The present issue is the result of a thorough revision of its predecessor at the hands of the author. It has likewise received the benefit of careful revision by Dr. Robert P. Harris, of Philadelphia, whose annotations in this and in previous editions have covered the points wherein American practice differs from that of English obstetricians. The work will continue to be a favorite text-book for students and a trustworthy guide for the practitioner.

MINOR SURGERY AND BANDAGING. By Henry R. Wharton, M.D., Demonstrator of Surgery in the University of Pennsylvania. In one 12mo volume of 529 pages, with 416 engravings, many being photographic. Cloth, $3. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co. 1893.

In response to the demand for a second edition the author has revised his work to make it represent in every way the advances of the two years which have elapsed since its first appearance. The exceptionally rich and beautiful series of illustrations, in connection with a singularly clear text, afford the student and practitioner all needed instruction in the many procedures grouped under the title. The pictures of bandaging are photographically reproduced from actual life. The author has construed his title very generously, and has placed within the covers far more information than is usually accredited to minor surgery, but readers will scarcely object to such liberality. Antiseptic surgery is dealt with in accordance with the latest and most approved practice.

HEALTHY HOSPITALS. Observations on some points connected with hospital construction, by Sir Douglas Galton, Late Royal Engineer, K.C.B., Hon. D.C.L., LL.D., F.R.S., Assoc. Inst. C.E., M.I. Mech. E., etc., formerly Secretary Railway Department, Board of Trade; Assistant Inspector-General of Fortifications; Assistant Under-Secretary of State for War; Director of Public Works and Buildings. With illustrations. Oxford: Clarendon Press. London: H. K. Lewis, Gower St.

A scientific and carefully arranged work. It will be of great value to carpenters and architects.

THE PHARMACOPŒIA OF THE U. S. A. Seventh Decennial Revision. 1890. By authority of the National Convention for revising the pharmacopœia, held at Washington, 1890. Official from Jan. 1st, 1894. Philadelphia: P. Blakiston, Son & Co. Toronto: Carveth & Co.

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### THE PATHOLOGY OF DIPHTHERIA, STATUS PRÆSENS*

BY THOMAS E. SATTERTHWAITE, M.D., NEW YORK.

The title of this paper as it has been given me for the purpose of introducing this discussion, intimates that I am to present you with recent facts bearing on the morbid phenomena diphtheria. But it also suggests (and, I think, very properly) that the pathological status is still somewhat uncertain.

In this country, pathology is commonly understood to embrace both pathological anatomy and pathogenesis; the latter includes also the causation of disease. These are all broad subjects. Fortunately, the pathological anatomy of diphtheria affords us little ground for difference of opinion. It has been well studied; and the matter was practically closed some years ago.

But the pathogeny of diphtheria, and with it, as I have said, the etiology (for they cannot be dissaociated) are still under active discussion, though the work of the last few years in Berlin, Paris, New York and Baltimore, has cleared up a number of doubtful points. And the importance of understanding the pathogeny is very great, for if diphtheria is shown to be a contagious disease, propagated by a peculiar bacterium that can be readily recognized and distinguished by the microscope, then we have made a great stride in diagnosis, and can inaugurate both preventive and curative methods in a way that has heretofore been impossible.

I may here premise that the preponderating evidence at hand is to the effect that bacillus known as Lœffler bacillus is the cause of *true, genuine* or *primary* diphtheria; but that there is also a *false* diphtheria which may be called *diphtheroid*, in which the diseased tissues have a bacillus similar in appearance, though without pathogenetic qualities; that diphtheria is a contagious disease (almost wholly so from a bacteriological point of view); that the Lœffler bacilli retain their virulence in a remarkable manner, but they also genetrate a soluble material that has similarly virulent properties; while finally another soluble substance known as an *anti-toxine* can be extracted from the blood of convalescents and immune animals, which may be regarded not only as a protective, but also as a curative agent.

So far as the pathological anatomy of diphtheria is concerned, its main features will now be briefly summarized. The disease is characterized by the formation of a membrane in the upper air passages, the throat, larynx and bronchi, the posterior nares, and sometimes the anterior nares; while any mucous surface in the body can also be attacked, or even the skin, if it has been abraided, as in the case of a sore nipple, or burn. But the mere presence of a membrane does not indicate diphtheria, and even a pathologically diphtheritic inflammation may attack a mucous surface, the conjunctiva, for example, though the patient have no diphtheria. In this connection, it will avoid some misunderstanding if I say that our German friends use the word *diphtheritic* to indicate that an exudation or membrane is attached more or less deeply to the tissues, while, on the other hand, they use the word *croupous* to indicate that it rests *on* the surface, from which it may be separated without affecting the integrity of the underlying parts. These, therefore, are *conventional* terms, but have long been in use on the other side of the water, where, I presume, they will continue to be used for some time to come.

But while the membrane is a characteristic of diphtheria, it is not an essential characteristic, and the exudation on the surface may be catarrhal or serous; or gangrene may replace the membrane. An interesting illustration of this point has recently been given by Concetti†, where an infant was found to have diphtheria bacilli in the mucous of the pharynx, though a membrane was not found until eight days later; and he has on several occasions found these bacilli in slight cases of

*Read before the N.Y. State Medical Society, Feb. 6, 1893.

*My friend, Dr. Theobald Smith, reminds me that there are diphtheritic exudations in hog cholera.

†Concetti, *Centralblatt. f. Bakteriol.*, 19, 1893, p. 629.

pharyngitis, and exceptionally in fatal cases, where no membrane at all developed. Further, bacteriological studies have confirmed the opinions of those pathologists who held that there is no structural difference between the membrane in membranous croup and diphtheritic laryngitis. Personally, I have never been able to see the difference between the two. Whatever name you may choose to give them, the membrane in either case is *attached* at some points and is *free* at others, for reasons that were given many years ago by A. Jacobi. As a rule, it is a fibrinous exudation similar to many others found in other morbid states of the system. But I do not see any objections to the old theory as stated by Oertel,* that some sort of a membrane may be created by necrosis (the so-called *coagulvtion necrosis* or *hyaline change*)† in the superficial layers of the epihelial cells, in some cases; but I must maintain, from my personal knowledge and frequent examinations of microscopic sections of the membrane *in situ* in the larynx and bronchi, that it can be shown to rest sometimes upon the topmost layer of epithelial cells, for I have seen the cilia of the cells beneath the membrane, and quite unaffected by the membrane lying on them.‡

As a rule, diphtheria is first seen either upon the tonsils, the uvula or pharynx, as a "fiery red" inflammation. From these points it spreads to internal parts, attacking this one or that; or several together; or a group or groups of muscles; one branch or several branches of the nervous system; some part of the vascular apparatus or genito-urinary tract. There is no reason to suppose that any part of the system is free from danger. Points of election are the muscles of the soft palate, the constrictors of the pharynx and some of the laryngeal muscles, thus causing regurgitation, imperfect deglutition, or embarrassed speech. Other muscles notably involved are those of the lower extremities, of the neck, and the sphincters. The muscle substance, when affected, exhibits ecchymoses, perhaps degeneration and atrophy. Any portion of the nervous system, and even the brain, may be attacked in several ways. There may also be endocarditis or myocardial change. In a recent case reported by Howard,§ a laborer, 44 years of age, and previously of good health, died after an illness of 24 days, of heart failure. At the autopsy he was found to have had acute ulcerative endocarditis of both the mitral and aortic valves, and degeneration of the myocardium. On the surface of the ulcers were numbers of bacilli, while a thrombus that was stratified and adherent to the ulcerated surfaces was largely composed of bacilli. Similar bacilli were also found in the thrombi of the spleen and kidneys. And yet it is true they had no pathogenic effect when cultivated and inoculated upon guinea pigs and rabbits. But these few negative experiments do not necessarily upset the theory that the disease was diphtheria. For inoculation experiments on animals with the most virulent matter, do not always succeed, and besides, rabbits and guinea pigs are ill-suited with inoculation diphtheritic virus. Death is not uncommon from heart failure, but it is in most instances from acute degeneration of the myocardium. It will then be found that the right ventricle is distended with blood, as also are the venæ cavæ.

If the disease extends down the air passages, and it does so in about one-half the cases in severe epidemics, there will be laryngitis, or bronchitis, and perhaps bronchial pneumonia, with more or or less pulmonary collapse, and effusion of blood and serum. Bronchial pneumonia is not an uncommon cause of death.

Below the diaphragm, all the organs such as liver, spleen and kidneys will show parenchymatous change, if there is profound constitutional disturbance And they will be congested whenever by a pulmonary or cardiac complication the lesser circulation is interfered with. For the rising column of venous blood, unable to get into the lungs, is backed down upon the organs in and adjacent to the abdominal cavity. To return for a moment to the membrane; the larger and thicker it is, the more severe, as a rule, the attack. When it is deeply attached, and separates, it may leave an ulcerated, sloughing or gangrenous base, with more or less infiltration of the underlying parts, and implication of the neighboring lymphatic glands. The preponderating weight of evidence tends to establish the fact that it is at first a local disease,

*Oertel, Ziemmsen's Handbook, Vol. 1, 1874, p. 587.

†Weigert Virchow's Archiv., XXIX., p. 87.

‡Quarterly Jl. of the Post. Grad. Med. Sch. and Hos., No. 1, 1885.

§Howard, W. T., Johns Hopkins' Hosp. Bull., 30, 1893.

and that constitutional infection is a secondary affair.

And now, having reviewed our pathological anatomy, let us look into our pathogeny. It will be convenient for me to take up this matter where I first studied it in the years 1874 and 1875, when in conjunction with Dr. Edward Curtis, Pathologist of the N. Y. Board of Health, we made about a couple of hundred experiments on the subject, mainly in the line of Oertel's* work that had been published in 1871. Our report was published in 1877.† In the propositions that we submitted as the result of our work, we laid stress on the belief that "the poisonous quality *(in diphtheria)* inhered in some particulate thing."

It should be stated here that Oertel had described various forms of round and rod-shaped bacteria in the membranes; but thought the former caused the disease. Oertel's work was most elaborate, and had created a profound sensation in medical circles, abroad and here. The work of the next thirteen years, however, resulted in relegating these spherical microzymes to a position of inferior importance, Cornil, the well-known French histologist, insisting that they were identical with the micrococci of pyæmia. And now the almost universal opinion is that they are in some way connected with suppurating processes.

About ten years ago, Loeffler called attention to a bacillus which he thought existed in the membrane only. It had a length of from 2.5 to 3 micromillitres, and a breadth of from 0.5 to 0.8 micromillimetres. He thought it had no spores, but Babes now claims that he has seen them, and says they are large and bright, and can resist a temperature of 100 C. The bacilli are quite irregular, and do not stain evenly.

Usually they are straight or slightly curved, but sometimes they are dumb-bell shaped. There are three ways of demonstrating them. One by the cover-glass method, that is applicable for bedside or rapid work; by cultures in suitable media; or by inoculations on susceptible animals. It is apart from the purpose of this paper to describe these methods, for they are to be found in all the recent text books on bacteriology.

But there are opportunities for error that are numerous, especially for one who has not been carefully trained in this delicate work. Through faulty technique the bacilli may not be stained, or they may have disappeared from the membrane. Or they may be confounded with several other varieties of bacteria. These chances for error lessen in proportion to one's increase in bacteriological experience, and also as one goes on to culture and inoculation on animals; the latter test being the one on which we should place the most reliance. But how greatly even practical bacteriologists have differed as to the importance of some of these tests, may be gathered from a few facts.

In 1888-'90, Roux and Yersin found the Lœffler bacillus in only seven cases out of forty-three admitted into hospital for diphtheria—16%.

But it is quite apparent that they use the word diphtheria in a loose sense, and that many of the cases were in no respect diphtheritic. But a prominent New York observer‡ in the year 1889, failed entirely to find them in 24 cases; afterwards it appeared that some of the patients had measles and scarlet fever, as complications. But later investigations have tended almost universally to sustain Lœffler, and the same American observer§ just alluded to, in a later paper, embodying the results of newer work, has given in his adhesion to Lœffler's later views.

Three more citations from the best laboratory work in Berlin, Paris and New York, will show how the matter stands to-day.

In 1892, Bajinsky‖ made rapid microscopic cover-glass examinations in 154 cases turned over to him as diphtheria, and found the Lœffler bacillus in 78%.

In the same year, but a little later, Martin,¶ of Paris, also made cover-glass examinations of material from 200 children, sent to hospital with a clinical diagnosis of diphtheria. The Lœffler bacillus was found in 64%. He usually found it at his first examination. But he noted three things: That when the larger bacilli were found, they usual-

*Oertel. *Loc. cit.*

†Curtis and Satterthwaite's Report of Investigations on the Pathogeny of Diphtheria. N. Y., 1877. Published by the *N. Y. Bull. of Health.*

‡Prudden, Am. St. of the Med. Sc. May, 1889, p. 328.

§*Med. Rec.*, April, 1891.

‖Bajnisky, *Berl. Klin. Woch.* Feb., 1892, p. 183.

¶Martin, Annales de l'Institut de Pasteur. May 1, 1892, p. 332.

ly indicated a severe type of the disease; smaller bacilli, a mild form; while smaller bacilli in conjunction with certain streptococci, or chain-bacteria, might indicate a very virulent type.

A recent New York worker* of large experience in bacteriological work, who has furnished us with the latest information on this point, says that out of 159 cases examined, he found the Lœffler bacillus in 54, or 34%. From these three sources, then, we get an approximate idea of the present value of the bed-side test, as viewed from the standpoint of the bacteriologist. He would be apt to find the bacillus in from 34% to 78% of the cases clinically named as diphtheritic. This view tallies with that held by my friend, Dr. R. H. Fitz,† of the Harvard Medical School, and it is evidently a safe and conservative ground to occupy at present.

At the same time my friends, Drs. M. P. Jacobi,† Welch,† of Baltimore, and Theobald Smith,† of Washington, write me that they expect to find the Lœffler bacillus in at least 75% of true diphtheria, while Dr. L. Emmett Holt tells me that he believes "the bacillus will be found in 95% of the cases of true diphtheria," and adds, "in my own hospital cases, it has been found almost invariably at the first examination."

So that a goodly proportion of our ablest men confidently expect to find the Lœffler bacillus in from 75 to 95% of their cases.

But in view of what will appear hereafter, and the recently observed fact that the bacillus will sometimes suddenly disappear out of a membrane, a variation in frequency even between 34 and 95% is quite intelligible; nor does it in any way weaken the position taken by Lœffler that it is, primarily, the cause of *true* diphtheria; though it greatly lessens its value as a diagnostic criterion in any one case. Some points in the life history of the bacillus are now to be noted. At a temperature of 37 C. it will retain its virulence for 7 weeks; in dried membranes it will live for 9 to 14 weeks: it may be potent even if taken from the throat 3 weeks after the cessation of the fever; at 18 to 20 C.; it will grow in some media; at 20 C. in milk. In agar it will survive 7 months; in glycerine it has lived 331 days (Lœffler), and, according to Abel,‡ much longer.

And now as to a newer phase of the bacillus matter: It was at first held that the Lœffler bacillus did not penetrate the tissues except, perhaps, in the immediate vicinity of the membrane. During the year that has just passed, this view has been overthrown. It is true, Davier§ had noted bacilli in the lungs in 1885, and Martin,‖ had seen them in a case of bronchial pneumonia of diphtheritic origin, but Frosch¶ last year found them in internal organs 10 times in 15 examinations.

Now American workers* have established this point conclusively, Abbott and Ghriskey finding the characteristic bacilli in leucocytes aggregated together in and about the mesentery of guinea pigs killed by inoculation over the belly and testicles with pure cultures; Flexner* has been able to confirm *Davier and *Martin's statements; and Howard even found the Lœffler bacilli in and about the mitral and aortic valves of a man who died of heart failure, in connection with ulcerative endocarditis, as I have already stated.

Before concluding this part of our topic which relates to the etiological relation between bacteria and diphtheria, it will be proper to allude to the problematic connection between certain other microzymes and diphtheria. And these are the so-called pyogenic strepto-cocci and staplylo-cocci. Both of these forms are found in the mouths of healthy people, but they appear to be unusually common in the anginas of measles and scarlet fever. Now there is an idea that the contemporaneous association of one or the other of these microzymes with attenuated Lœffler bacilli will produce a virulent form of the disease, that the bacillus alone could not evoke; and the Italian observer Concetti† has gone even so far as to say that though he could produce genuine diphtheria in pigeons, at least, by the inoculation of the Lœffler bacillus, he could do the same by inoculating the pneumo-coccus, strepto-coccus and staplylo-coccus; though, on the whole, the latter gave a more

*Park, *Med. Rec.* July, 1892.
†As communicated to me by letter.

‡Abel, *Centralb. f. Bakteriol.*, 23, 1893.
§Davier, *Thèse de Paris*, 1885.
‖Martin, *Loc. Cit.*
¶Frosch, *Zeitschr. für Hygein*, III., p. 49, 1893.
*John Hopkins' Bull., 30, 1093.
†Concetti, *Centralbl. f. Bakt.*, 19, 1893.

favorable prognosis. It should be stated, however, at this point, that the diphtheria of pigeons appears to be unlike that of the human species.

But now we come to a serious question. From the time that Lœffler first called attention to his bacillus to the present moment, all prominent bacteriologists have found bacilli in various situations that were morphologically similar to the Lœffler bacillus, but non-pathogenic. The Paris observers, Roux and Yersin, found this bacillus 15 times in 45 children, that did not have diphtheria, 33%. Among 59 healthy children in a village school, they also found them 26 times in 44 examinations, 59%; in five out of seven cases of measles, 71%.

In 1891 Abbott examined 53 patients with ordinary catarrhal affections of the upper air passages. In 49 he found ordinary bacteria, chiefly the pyogenic micrococci. In four, or 7.5%, he found the non-pathogenic bacillus. But Park in 159 cases appears to have found it only once.

However, the existence of a non-pathogenic bacillus is now generally admitted, but, as will have been noted, American workers have found it so infrequently, that (here at least) it has not been a very disturbing factor in the diagnoses. Now if, as I have said, we should expect to find it in from 75 to 95%, we should also expect it to be absent sometimes, if the report of Tecenas de Montcel* is confirmed, for in 50 cases of true diphtheria he found the bacillus disappeared in 6 or 12%, after the second or third examination.

I cannot here take up a further discussion of the non-pathogenic bacillus, except to say, that in respect to cultures in suitable media, it has a similar growth to the Lœffler bacillus, though the latter develops in 12 hours in the incubator, while the non-pathogenic form takes from 24 to 72 hours. Other differences have been given, but the general impression is, that the differences between the two are in *degree* rather than in *kind*. On the other hand inoculations of the cultures of non-pathogenic bacilli produce no result, unless there is an admixture with other pathogenic microzymes.

Inoculations should be practiced, however, on susceptible animals, of which kittens, puppies and chickens stand in the first rank—and the trachea, duly irritated, should be the point of election. For we have good reason to believe that these lower animals have the same sort of diphtheria as the human species, and that the disease can be contracted from them directly.

But now we are to take up a still more practical phase of the matter. About the time that Lœffler published his earliest views on the bacillus of diphtheria, Dr. Theobald Smith† in conjunction with Dr. Salmon, of Washington, following somewhat in the line of work inaugurated by Gautier, of France, and Selmi, of Bologna, found in the hog cholera virus, not only a special microphyte, but also a peculiar substance elaborated by it, and capable of producing the disease. I had myself anticipated (in my own mind) this discovery, by an experiment conducted as early as 1876 (Mch. 28). In conjunction with Drs. Frank P. Foster, W. F. Cushman, and Wm. H. Lawrence, I had assisted in the inoculation of a heifer with pure vaccine lymph, intimately intermixed with salcylic acid, in the strength of 1 to 250, a strength sufficient to destroy the activity of all bacteria in the mixture. But, notwithstanding this, five pocks appeared in April 4, while on the other hand two out of four of the controlling experiments made with pure lymph on the same animal were failures.‡ Hence in this case the poison could not have resided in any ordinary bacterium.

Now Hankin,§ in 1889, while engaged in the study of anthrax had obtained an albuminoid substance which, inoculated upon susceptible animals, protected them from disease. And in the diphtheritic virus there appears to be an analagous substance, which quickly decomposes and is destroyed at a temperature of about 50 C. It is also insoluble in alcohol. If concentrated and dropped into absolute alcohol, to which a little acetic acid has been added, there will be thrown down a greyish-white flakey deposit, which is soluble in water, but is precipitated again by alcohol. After this precipitate has been dried in a vacuum at 70 C. it forms a snow-white amorphous mass. This substance is now classed as a toxal-bumin. It appears to be derived from the bacteria, though some hold to the idea (without reason, I think,) that it comes

*Tecenas de Montcel, *Prov. Med.*, 21, 1893.

†Smith, Proceedings of the Biol. Soc. of Wash., Vol. III, 1884-6.

‡Curtis & Satterthwaite, Loc. Cit.

§Hankin, *Brit. Med. Jl.*, I. p. 810; *Centralbl. f. Bakt.*, 6, 1889.

from the animal tissues. Recent experiments on this topic by Martin* and others appear to indicate that the toxic power of the albumin is slight, when the culture has an acid reaction; virulent when it is alkaline. The virulence is reduced by exposure to 58 C. for two hours and removed by boiling at 100 C. for twenty minutes.

We now pass on to another step that was made by Behring, an assistant in Koch's laboratory. In 1891-2 he found in the blood of immune animals a something non-bacterial, that neutralized the otherwise toxic products of the Loeffler bacillus. What was it? Behring† held to the idea that the blood serum contained this *anti-toxine*, as it was

About one year ago Drs. Klemensiewitz‡ and Escherich tested the theory by experiments on guinea pigs. They also succeeded in getting some blood from patients convalescing from diphtheria, and extracting the blood serum, found that it arrested the poisonous action of the diphtheritic cultures that had previously been inoculated upon guinea pigs.

But about nine months ago, Kossel§ was, so far as I can learn, the first to test this *anti-toxine* on the human being. During last March and April eleven children were treated. Their ages varied from three to eleven. Four underwent tracheotomy. Of these four, only one died. Of the eleven, nine recovered. These cases were undoubtedly severe ones, but the mortality was light, and in the tracheotomy cases *unusually* light. In the previous year, in the same institution, of 32 cases only eleven survived. Hence a fatality of 65% under ordinary treatment, as compared with 18% under the anti-toxine. So far, then, the results of this new mode of treatment appear to be most encouraging.

Efforts are now being made by Behring‖ to concentrate this blood serum or make an extract of it; while Aronson¶ claims that he has already succeeded in so doing, but has not had sufficient opportunity for testing it. And here the matter rests.

*Martin, Annales de l'Institut de Pasteur, Nov. 1, 1892, p. 335.

†Behring, *Zeitsch. fur. Hygen*, Pa., 12, 1. p. 10.

†Behring, *Deutsch. Med. Woch.*, Jan., 1893.

‡Klemensiewitz, *Centralbl. f. Bakt*, 13, 1893.

§Kossel, *Deutsch Med. Arch.*, April 27, 1893

‖Behring, *Deutsch. Med. Woch.*, June 27, 1893.

¶Aronson, *Deutsch. Med. Woch.*, July, 1893

Now, while we appear to have all the proof that is requisite to place true diphtheria among the contagious diseases, there is a difference of opinion, as to whether it may not also be autochthonous, that is, self-generating, or indeed miasmatic. Gottstein* concludes from his experience, that if 100 susceptible individuals are exposed only 21, or 21% will take it, while in measles 99% would take it, and in scarlet fever 30%. The sources of contagion whether direct or indirect, are held to be, primarily, the membrane as spit up or coughed or sneezed up, and so inspired or swallowed directly or indirectly through the medium of infected garments, or instruments or vessels that have been contaminated, by milk, perhaps even by flowers taken from the coffin of diphtheritics. It is certain also, I think, that several of the domestic species animals suffer from a communiable form of this disease, and that both in them and in mankind it may be propagated from chronic cases or from convalescents after the acute stage has been passed. In this connection Dr. L. Emmett Holt's views are especially interesting and valuable. He writes me: "Diphtheria is certainly much less contagious than measles, scarlet fever or small pox."

"I have personally known of but two physicians contracting the disease from patients. In three cases only have I seen parents or nurse take the disease from children. I believe this to be very rarely the case if proper precautions, such as the regular use of an antiseptic gargle and nasal spray, are employed."

This is the view commonly held by most of our clinicians. In this connection, it should be borne in mind that there is a vast difference in the liability to the reproduction of a disease, according as we view it from the standpoint of the bacteriological laboratory, or our actual every-day experience. Under special conditions, which the experimenter can regulate, he may reproduce a disease like diphtheria in 95% of his laboratory experiments, while in our clinical experiences it may not be reproduced by the ordinary processes of nature in 10%, because the conditions are unfavorable. That so low a percentage as 10 or 20% contract diphtheria after exposure, does not, however, invalidate the theory that it is exclusively caused by contagion. But it indicates that

*Gottstein, *Berl. Klin. Woch.*, 25, 1893.

there are other conditions that govern the propagation of the disease. Some of these we know to be the age of the individual, and the condition of his mucous membranes in the upper air passages, probably in sanitary surroundings, the season of the year, etc. Hence these latter considerations should not be overlooked, even assuming that the disease is (as it may be) wholly contagious.

There appears to be a diversity of opinion as to whether practicing physicians should make cultures, or inoculate animals for the purpose of diagnosis. In this connection I shall quote from Dr. Theobald Smith, of the Bureau of Animal Industry, Washington, D. C. He writes me as follows:

"I think that no practicing physician should attempt the diagnosis. Bacteriology is too complex a subject now. The difficulty would be, not so much in recognizing the bacilli in an acute recent case, as in recognizing and deferentiating the many other forms likely to appear in the cultures. . . . . "

"The difficulties in deferentiating species is becoming greater with every new one described, and any one who has spent much time with any group of bacteria knows of many gradations and variations which are likely to confuse the novice or the occasional microscopist."

Dr. Smith's views are those held by the majority of those most competent to give opinions in the matter, and they maintain that Boards of Health should not attempt to make such experiments *compulsory* on physicians. They maintain that work of this kind should always, if practicable, be done at some bacteriological centre, and then it should be revised by an experienced bacteriologist, if it is to have any practical value. And it is felt that the difficulties of establishing these centres are not unsurmountable.

Certainly both humanity and science call upon us to favor such researches to the full extent of our power as physicians. Still if we are to have the best results in the shortest time, we should endeavor to see that the material falls only into competent hands.

---

CIMICIFUGA IN MENTAL DEPRESSION.—Dr. G. W. Durga, *Med. Bull.*, says black cohosh is very valuable in symptoms of mental depression occurring in subjects with uterine disorder.

## NEURASTHENIA.

BY PROF. G. RAUZIER, OF MONTPELLIER.

Translated from the French, by D. Campbell Meyers, M.D., Toronto.

Neurasthenia is a common disease; according to Blocq, one neurasthenic is seen in every twelve patients in the consultation hall of the Salpêtrière. This proportion seems to us too small, and in a provincial centre relatively quiet we certainly see a much greater number. Neurasthenia, of which traces are found in all ages, appears at the present day with much greater intensity than formerly, owing to our method of living, and to the fierce *struggle for life* of the nineteenth century. This will be the reigning disease of this *fin de siècle*, and it is impossible to foresee what it may reserve for the coming century.

We must, however, guard against exaggerations, and not find neurasthenia everywhere; one might easily mistake in this way for a neurosis, all the good or bad actions of life which had been insufficiently considered; "every individual," it has been humorously said, "who takes wife or tobacco, who is charitable or passionate, is a neurasthenic."

Neurasthenia is met with at all periods of life; it is most frequent in the adult, and is rarely seen in the child. The two sexes pay to it an equal tribute. It is recruited from all classes of society, but affects, perhaps, with greater predilection, the upper classes; the liberal professions furnishing the most notable contingent to it.

Neurasthenia may be defined as the result of nervous exhaustion, all causes capable of depressing the nervous system can be recognized in its origin. The essential condition of its development is excessive fatigue, regarded in its different aspects and various forms. The elementary cause, so to speak, of neurasthenia, says Mathieu, is *over-pressure of the nervous system*, over-pressure with its two fundamental elements—excess of work or excitement, insufficiency of rest and of recuperation. "All the causes of neurasthenia," says Prof. Grasset, "may be traced to excessive fatigue in all its forms, that (alone) is the key to the problem."

Such, for instance, excessive application to study. That is a broad question, very much discussed, at present. Some wish to show it every-

where, others deny it; a great deal of exaggeration on both sides.

Over-application to study does exist; it is a frequent cause of neurasthenia, but of a special phase of neurasthenia, particularly studied by Charcot and Keller, under the name of *adolescent headache.*

How is this disease developed by excessive study? It is not by the number of hours, either of classes or of study. Some students work as long and even longer than their comrades, without suffering from it. It shows itself among those whose ambition, whose future is the dominating idea, who think unceasingly of how to attain the foremost position, of the fellow-student to excel, of the examination to pass, of the special school to which he must be admitted before reaching the stipulated age.

The students who are *dominated* by these ambitions, who *dream* of them, are those who become neurasthenic, *especially* if to this domination is added work difficult of performance, and constant effort is necessary for them to arrive at the same goal, that others more highly gifted, reach easily. How many neurasthenics are developed among young girls who *strive* for their certificates with unwearied tenacity, *either* by failure at an examination, *or* by the practical disillusions which too often follow success.

The same may be said of *professional over-pressure.* I have seen many cases of nervous systems prematurely shattered, especially among officers of the engineers who had risen from the ranks, forcing themselves to complete, better than all others, a work which was easily accomplished by their comrades who had graduated from the Polytechnic School. There, again, it is the difficulty, not the quantity, of the work, that must be blamed.

In a profession so captivating as our own, in which it is said we die of hunger or fatigue, when we do not die of both, some over-work themselves because they take everything so zealously, almost fanatically, dreaming of their patients, speaking of their operations even at table, discussing medical questions even on the promenade; whilst others, taking events more easily, more quietly, more philosophically, do not over-fatigue themselves, even while doing more work than the others.

There is also *political over-pressure,* which is so frequent at the present time; it depends entirely on the way in which things are taken. You know one politician, cool, quiet, and intensely practical, who prefers eating chocolates to a day's shooting. He distributes or appropriates offices, becomes stout, and does not over-exert himself. On the other hand, you have as a contrast, the ardent enthusiast, who fritters himself away, night and day, who is rebuffed on all sides, is seldom elected, and utterly exhausts his nervous system. I emphasize this, above all causes, because it is not sufficiently discussed. Many recent tirades on over-pressure and neurasthenia might make one believe that that affection is the disease of over-work; whence would follow the natural conclusion, that the way to avoid nervous affections would be to do nothing. I wish to reassure those among my *readers* in whom this opinion might, relax the ardor of their work; let them make themselves easy; it is not the quantity of work which exhausts, it is the way it is conceived and executed.

Therefore, the true problem to solve for the pedagogic education of the child, is not to make him work to accumulate a number of things in his mind, but to teach him how to work well. The future belongs to those who *know how to work.* Intellectual work, therefore, is not in itself a complete factor of neurasthenia, in order to produce it, it is necessary that to persistent labor different forms of pre-occupation should be joined; such as the cares of material life, fears of not reaching the desired goal, an exaggerated idea of responsibility, giving way to an excessive and unsatisfied self love, annoyances and deceptions tending to complicate and darken each day's task. Whence the frequency of neurasthenia among speculators, politicians, artists, philosophers, doctors, and also in certain professions, *e.g.,* postal service, where the severity and continuity of the work are not compensated by proportional renumeration.

If the occupation, followed with severity and accompanied by success, cannot be considered as the cause of neurasthenia, on the contrary moral excesses with their pre-occupations suffice in themselves to give rise to nervous affections. Depressive emotions, the effective passions above all, when they are smitten with failure, exhausted by grief, the reverses of fortune, deception of any

kind, each may serve separately as a determining cause. Fear acts powerfully on the nervous system, and frequently becomes, in times of epidemics, a veritable breeding place of nervous affections, which further incumbers the locality or its environs with a nucleus of contagion. The demands of *aristocratic life*, with the multiplicity of "distractions" that it imposes upon the initiated, with the reversal of normal life and habits, with its rivalries, its triumphs and reverses of self love, of which no reflection should pierce through the mask smiling under all circumstances, provides, creates and maintains neurasthenia. Levillain cites another influence enervating and depressing, viz., immoderate indulgence in music, literature, and the theatre. Certainly it is annoying and often prejudicial to be ignorant of what is going on; but this would be, it seems to us, expanding too widely the sphere of neurasthenia, rather than comprehending the nervous stimulation produced by the satisfaction of artistic or literary inclinations.

*Abuse* of the generative organs (coitus, onanism) has been equally blamed. One finds, it is true, similar excesses in the antecedents of many neurasthenics; but with Lasèque, one may ask, whether they were the cause or the effect, whether like indulgences have produced nervous affection, or rather, constituted its first manifestation. Some authors have especially denounced the abuse of *coitus interruptus*, practiced continuously to avoid the risks of an increase in family. The question of *muscular excesses* is still more open to question. Neurasthenia is rare indeed among inhabitants of the country, in conditions where the muscles work more than the brain, and where out-door life, strengthening and regulating the nervous system, makes the man happier, more contented, and better balanced. On the other hand, the influence of *traumatism* at the present time is undeniable, the nervous shocks produced by trauma, and often out of proportion to the extent of the injury, has sometimes, as a *result*, a mixed nervous affection, partaking both of hysteria and neurasthenia; this is *traumatic neurasthenia*, of which we will treat further in the chapter on Hysteria.

Certain forms of poisoning also appear to play a part; the abuse of tobacco, of tea, of coffee (Krishaber) have been invoked, but it might be well to make some restrictions as to the last two substances and to ask oneself *whether* to lay the blame upon the exciting beverages or the excess of work they were destined to favor. The excessive use of morphine, ether, cocaine, and iodoform, are equally blameworthy; here again, would it not be proper to return to the origin of these abuses.

Several *general affections*, acute or chronic, merit a position in this etiology. Among acute affections we would mention, grippe, typhoid fever and pneumonia; among the chronic conditions, they have included particularly (and recently) syphilis, tuberculosis and the uric diathesis.

In short, certain local diseases, lesions limited to a single organ or part, can as time passes, by simple persistence, and thanks to the constant pro-occupation bestowed upon them, engender neurasthenia. For instance, diseases of the stomach, of the liver (whence the name hypochondria, given by the ancients to certain form of nervousness), of the genito-urinary organs, etc. "In addition to psychical neurasthenia, there is also organic neurasthenia."

But all that is not sufficient; it is not enough that there is excessive fatigue, a poisonous substance or an illness, to have formed pre-occupations, or suffered from a wound, to become neurasthenic. One sees individuals whose existence has been one long series of misfortunes or of vices, a career interrupted by fatigues or evils, and who have still escaped neurasthenia; preserving in the midst of their miseries, the equanimity and well-balanced temper of the philosopher, indeed even gaiety. Therefore, something more, which is predisposition, is necessary in order to become the prey of this nervous affection; there must be a previous *failure* of the nervous system, hereditary or acquired, a relative feebleness of the nerve centers which makes it impossible to resist successfully the effect of the causes heretofore enumerated.

It is customary, in short, to seek among the personal or hereditary antecedents of the neurasthenic as among the greater number of nervous diseases, some nervous defect, organic or functional, and it is not rare, on the other hand, to discover associated with neurasthenia some other disease of the nervous system. We will review these facts when we treat of the pathogenesis. Neurasthenia once constituted, one of the causes which contributes most powerfully to its maintenance in many cases, is the influence of the environment, of the

family environment in particular. "This," writes Mathieu "is a hothouse for neurasthenia as well as hysteria. They (these states) are maintained by the compassion, touching and kind of alarmed sympathizers. The patient, more especially if a woman, becomes, half unconsciously a veritable tyrant to those who surround her. All in the house should subordinate themselves, and do so often to her affliction. Here is a pernicious association the medical man must break up to affect a cure. This is what Weir Mitchell understood thoroughly when he proposed medical *isolation*, and the methodical treatment of rebuilding which we will explain hereafter."

It sometimes occurs, from another reason, that the prolonged contact of a neurasthenic impresses his symptoms in turn on another subject predisposed by his surroundings. [From this contact, unhappily too frequent, between two subjects destined by duty or occupation to pass their entire lives together, will result a particular form of neurasthenia, in our opinion the most dreaded and most obstinate, double, neurasthenia.

(*To be continued.*)

## THE RITE OF CIRCUMCISION AS PRACTICED BY THE HEBREWS OF TO-DAY.

BY J. T. FOTHERINGHAM, B.A., M.D., TORONTO.

The writer recently, in his capacity of accoucheur, was invited to attend the circumcision of a Hebrew infant, and as the operation was done and viewed from a religious standpoint, as a rite rather than a surgical undertaking, some account of it may interest the reader who has not had an opportunity of seeing it. The actual removal of the foreskin was so simple an affair as to call for no comment, but the accessories were novel, and calculated to excite reflections both grave and hilarious. The child was brought down from the lying-in room by the grandmother, an hour or two after seven days had elapsed since its birth, arrayed in its best and whitest, lying lengthwise on a pillow. On surrendering it to the relative who was to hold the child, acting probably as his godfather, she incontinently scuttled up-stairs again to the other women, who, in accordance with old tribal notions, remained out of sight, and had no part nor lot in the case. When the boy was brought into the room by the godfather, who had thrown round his shoulders, after the fashion of the stole, the *talith*, a white silken drape about six feet long and a foot or more in width, with fringed ends, the operator at once began his ceremonial, in the shape of loudly and rudely intoned Hebrew prayers. The operator in these cases, though often, as it seems a rabbi, is not always in holy orders, and in this case was the butcher, who had duly qualified himself for the performance of the rite among the community, by carefully getting up the ritual for the ceremony. He was as poor a type of asepticism as one could find in a day's hunt, a rusty unkempt German Jew, with long hair and beard, and a coat to correspond, and the pervasive insinuating odor of the "great unwashed." His preparations had been made for the arrival of the child. He had drawn up to the window a small table on which the godfather took his seat, holding the child, still lying on the pillow, with its head towards him, and its thighs grasped and held apart, one in each hand. His feet were supported on a kitchen chair set in front of the table. On another chair, within reach, were set the operator's paraphernalia; first, the knife, a short, square-pointed double-edged one, very thin, like a small spatula, evidently accustomed for many generations to its work of making Hebrews, and used of course for nothing else. Then a glass of water, a wine-glass containing a saturated solution of sugar in whisky, in which lay a strip of old linen, a saucerful of coal ashes, a few small squares of old linen for wipes, and a small bag, the size of a marble, filled with sugar and crushed fruit-cake.

After the godfather had taken his place on the table, the operator still uttering loud prayers which sounded all the more barbaric from the combination of Hebrew guttural and a chronic huskiness of voice, undid the diaper and disclosed the child's penis in a state of erection, induced, doubtless, before he was brought into the room, and meant as a safeguard against too close a shearing off of the prepuce. The foreskin was removed by a sweep of the knife, the mucous membrane rapidly torn and pushed back with the fingers, and the bleeding stump promptly taken into the mouth and vigorously sucked, the blood being expectorated into the saucerful of ashes, and the mouth washed with water from the tumbler.

The vigorous yells of the infant were nipped in

the bud by the introduction into his mouth of the little bag of sweet stuff already mentioned, which served the purpose at first of a gag, and then of a seductive substitute for his maternal organ of solace. Then the strip of linen was taken from the whisky, quickly wrapped round and round the organ, a little whisky poured on, and the diaper pinned up again. Dismounting from the table, the godfather stood and held the child still lying on the pillow, while more prayers were said, and a tumbler of ale brought in, in which the operator thrice dipped his finger and placed it in the child's mouth, afterwards drinking the ale himself in the intervals of his praying. Then he covered the face with one hand for a time, still praying, and during this part of the ritual named the child, after which the ceremony was at an end, and the little one carried off to his mother. The male friends sat down to discuss a refection of various wines and cakes, fruit, etc., and toast the child, the women being still excluded. The operator remained for two hours, as is the rule, to watch against hæmorrhage, for death has been known to result from that cause, and returned every day for a little while to watch his patient.

The details need no comment. They afford a curious instance of the coincidence of ancient clinical experience and modern antisepsis, the wound being practically healed in three days. As for the religious aspect of the performance, it gave food for reflection upon the curious conservatism, so characteristic of the Hebrew race, which has caused the survival, in the face of the most evident evolutionary progress, of a ritual so savage and crude, spiritual certainly by comparison in the days of its origin when the Hebrew race were the only monotheists in the world; but to an onlooker of an Anglo-Saxon community to-day, little advanced, so far as externals are concerned, from the ritual of a fetish-worshipper in Central Africa.

## Selected Articles.

### THE TREATMENT OF MOVABLE KIDNEY AND ITS RELATION TO HYDRONEPHROSIS.

Though vague allusions may be found in some of the older writers to that condition which we now recognize as movable kidney, it was not until well into this century, when Rayer's work on diseases of the kidney appeared, that this condition was fully described and the symptoms and sgns were pointed out by which it may be recogniized during life.

It is much more recently still that the connection which exists between hydronephrosis and movable kidney has been made clear, if indeed it can be said to be clear even now.

Experiment and clinical observation alike have proved that for the production of that condition which we call hydronephrosis, it is necessary that the obstruction to urinary outflow should be incomplete and partial, whilst the sudden stoppage of any portion of the ureter leads to complete suppression of urine so far as that kidney is concerned, and is speedily followed, if the other kidney be healthy, by its atrophy and almost complete disappearance.

It does not require a very prolonged experience to show that all cases of hydronephrosis do not lead up to, or depend on, movable kidney, and it is equally clear that all cases of movable kidney do not pass on into a condition of hydronephrosis. It is quite sufficient to recall the fact that these two conditions are *often* associated with one another as cause and effect, and to recognize that even in their earliest stages, they should never be dismissed without a thought as to their future progress, and the means which may be taken to arrest it.

It is by no means easy, even in the earlier stages of hydronephrosis, to detect the exact cause or causes which have led to its production, and the difficulty becomes tenfold increased in the later. Some pressure exerted on the corresponding ureter, especially if it has been both prolonged and intermittent, is usually at the bottom of the trouble. Tumors of various kinds can be discovered in many cases. Amongst them may be numbered ovarian cysts, and other growths which press upon the ureter at its lower extremity, either from the inside of the bladder or its exterior. Mr. Henry Morris, some years ago, described an instance in which a villous tumor in the bladder, by engaging the mouth of one of the uteters, gave rise to a hydronephrotic tumor, which intermitted considerably in size from time to time. In the later stages of uterine cancer, it is by no means uncommon to find hydronephrosis commencing in one or other of the kidneys. Such cases, however, rarely call for active treatment, and must be regarded rather as features of pathological interest than of practical importance.

Bands of cicatricial tissue, and abnormally distributed vessels, passing over and compressing the ureter from the outside, and clots of blood or calculi in its interior, are other sources of origin of this affection.

But probably more common than all these causes

and much more insidious often in its onset is movable kidney, an affection which is much more common in women than in men. It is by no means surprising that this should be the case. Their tissues, especially the fasciæ in the neighborhood of the kidney, are thinner and less firmly attached to the surrounding parts. There is a larger deposition of fat in the tissues, and it is more liable to alterations in amount than is the case with the male sex.

The first symptom probably by which attention is drawn to the kidney is pain. The patient will assert that from time to time, especially at the monthly periods, she is seized with an attack of pain, possibly severe or even violent in character, and suspicions of a renal calculus are at once raised in the mind of her medical attendant. But on close examination it will generally be found that these attacks increase in frequency and in severity as well. If they are severe, she may be seized with an agony of pain that is truly excruciating, and which precludes for the time being any possibility of carrying on whatever occupation she may have been engaged in. The pain will perhaps shoot down into the groin, the back of the leg, or along some other branches of the lumbar plexus. An examination of the abdomen on the affected side will probably reveal the kidney exquisitely tender and *slightly* enlarged so as to be easily distinguishable and extremely painful when handled. In the course of an hour or two, the pain may possibly abate somewhat or remain for a while almost equally severe and intense. The abdomen on the affected side usually becomes distended, tense and tympanitic, and seems to point, perhaps, in some cases, to an attack of peritonitis. After a few hours the attack passes off, and is usually succeeded by the passage of some clear urine, which is occasionally tinged with blood.

The following case, which was under my care some years back, in St. Bartholomew's Hospital, well illustrates the class of case which is being referred to. He had suffered from pain in the region of the left kidney for some little time before seeking advice. Latterly, his attacks had become more and more frequent, and were brought on every few days whenever he attempted any unusual exertion. Shortly after he came under my care, he was seized with the premonitory pains of an attack, and within about half an hour of its onset, I had an opportunity of examining his abdomen. He was lying in bed, and his pain was so severe as to give rise to vomiting. On examining the kidney region on the left side, with one hand in the lumbar region and the other on the front of the abdomen, the distended and tender kidney could be easily felt. It appeared to be nearly as large as a cocoanut. Whilst manipulating this mass, it suddenly slipped backwards, and the pain ceased almost in an instant. About a quarter of an hour later he passed a considerable amount of urine, after which he seemed to be perfectly well.

During this patient's stay in hospital several opportunities were obtained of examining the kidney during the early stages of one of his attacks of renal pain, and by careful manipulation it soon became possible to replace the movable organ and cut short the attack. Eventually, the kidney was explored and found to be dilated into a mere shell containing scarcely any secreting substance. It was removed, and the patient made an excellent recovery, and has since been able to follow his employment without let or hindrance. A better example could hardly be afforded of the insidious onset of some of these cases, of the interdependence of movable kidney and hydronephrosis, and of the rapidity with which, in some cases, the secreting substance of the kidney is destroyed.

To diminish, or if possible to obviate, the chance of such destruction is the object to which treatment should be directed. When a kidney is dislocated from its natural position by some violent action, or gradually slips down from the back of the abdomen by imperceptible degrees, it may be that no interference with the ureteric outflow ensues, and it is quite possible for both kidneys to be so movable that they can be made easily to touch one another in the middle line over the front of the spinal column, where they may be felt of normal size and consistency, and yet there may be no symptoms by which their mobility is made patent to their possessor. In such cases, the fact of their mobility is only discovered by an examination of the abdomen for some other purpose. No special treatment is called for in a case of this kind, inasmuch as the kidneys are performing their functions without difficulty. But should the mobility of the kidneys give rise to symptoms of pain, and especially if the pain be violent, we at once have an indication that its excretory function is in jeopardy, and means should be taken for retaining it in its proper situation. It is, as a rule, with those which are the least mobile that the symptoms are most severe. Their tether is a short one, and their bed but a little too large. If once displaced from it their functions are impeded, and, even by the aid of manipulation, it is difficult to replace them in their natural situation. Indeed, oftentimes they are so slightly displaced that it is all but impossible to discover that they are moved out of it. A simple belt with a pad on its inside, placed over the affected organ, will oftentimes, particularly in the slighter cases, retain it in position. If this fails in effecting its purpose, nephroraphy should be performed. It has often been urged against this operation that it fails in effecting its purpose, and that the pains which were regarded as an indication for its per

formance are as bad afterwards as they were before. It must be admitted that there is some truth in the statement, and that to retain in position a kidney that has been rendered *extremely* mobile, is by no means easy. But it is only when secondary changes in the shape of lengthening of the ureters and renal vessels have occurred that any difficulty of this sort should be experienced. It is no more possible to guarantee the radical cure of wandering kidney, than it is to effect a radical cure of every advanced case of hernia. If cases, however, are taken in time, and treated early in their career, the result is a good one, and the further destruction of the kidney substance by distension is arrested. As the early recognition of these cases advances, so will the necessity for the removal of hydronephrotic kidneys diminish.

But there is another side to this picture. Hydronephrosis may precede mobility, and indeed be the active agent in its production. The course of events is in such a case easier to realize. Some obstruction occurs to the ureter, distension of the kidney ensues, which, provided it be gradual enough in its onset and course, will afford the patient no more indication of its occurrence than does the gradual enlargement of the bladder which often supervenes upon enlarged prostate. Once enlarged, the kidney pushes aside its neighboring structures, and becomes loosened in its bed, and if the obstruction be a temporary one, the kidney shrunken to its former dimensions, lies in a larger bed than it has recently occupied. Mobility ensues as a matter of course, and becomes aggravated as time goes on.

The relief of these cases is more difficult. It can only be effected when once the cause of obstruction has been discovered, and dealt with in an appropriate manner.—W. Bruce Clarke, M.B., F.R.C.S., in *Hosp. Gaz.*

## OBSERVATIONS ON THE BRAIN OF THE SHEEP IN DISEASES OF THE CENTRAL NERVOUS SYSTEM AND MIND.

The remarkable effect of the thyroid gland in the treatment of myxœdema has naturally stimulated inquiry into the action of other glands and animal structures generally in various morbid conditions of the system. The question was obviously suggested. Might not these organs or their active principles have a similar beneficial action in many organic diseases or functional disorders, particularly such as affected the same structures as those administered, for example, the suprarenal capsule in Addison's disease and the brain in cerebral disease? Greater and more respectful attention was at the same time directed to the observations of Brown-Séquard on the orchitic fluid.

Impressed with the fact that the gastric juice did not impair the action of the thyroid gland or its extract as a remedical agent, it occurred to me to test the effect of brain substance taken into the stomach in some organic and functional diseases of the brain and spinal cord. I was not, however, very sanguine as to the result, for, first, a formed product, like the cerebral tissue, differs materially from a glandular secreting organ, as the thyroid no doubt is; and, secondly, it seemed not unlikely that the soft pulpy material of the brain would be more fully acted on by the digestive secretion of the stomach than the firmer and more resistant constituents of the gland or even than a concentrated fluid extract But, though these objections presented themselves, the fact remained that, notwithstanding the previous preparation of the thyroid and its submission to digestion in the stomach, there appeared to be no material impairment of its curative power in myxœdema, and it was therefore possible that other organized matter, though subjected to similar disintegrating processes, might still be efficacious in morbid states of the body. Influenced by these considerations, it was resolved to test the action of brain taken by the mouth as an aliment.

In all cases the brain of the sheep was used. Arrangements were made with a butcher to have it removed from the head of the animal within an hour or two after it was killed for the market. It was immediately taken to the chemist, who made a glycerine preparation of it, flavoring and coloring it with cinnamon, cochineal, etc. Within twelve hours the medicine, if we may so call it, was ready for being dispensed; it kept quite fresh, when in a cool place, for four or five days. The usual dose prescribed was one teaspoonful thrice daily before meals, but in some cases this was increased to two teaspoonfuls. In no case was sickness or nausea produced when given in the smaller dose; but in one or two patients the stomach was intolerant of the larger quantity, and it was necessary to reduce it. The taste was not unpleasant, and no one complained that it was disagreeable to the palate. Care was taken not to mention the nature of the medicine in the hearing of the patients, lest they should revolt in its use. I have named it myelin, which indicates its nature.

The preparation was administered to six patients in all in the asylum, and five in the Royal Infirmary. The former group included two cases of subacute melanchlolia of an ordinary type, and one of the resistive variety of that disorder; one of simple and one of chronic mania, and one of delusional insanity (paranoia). The infirmary cases consisted of two cases of bulbar paralysis, one of general paralysis, one of chronic myelitis, and one of locomotor ataxy.

Besides noting the effects on the disease of the nervous system, observations were made on the

pulse, temperature, respiration, and general condition. Looking at the results generally in relation to all the cases there was no decided alteration in the bodily state while the myelin was being taken; no doubt two persons gained each about two lbs. in weight, but two others lost about the same amount. In two patients the respiration increased from 18 to 24 per minute, but in the others they were unchanged.

Referring now more particularly to the cases of insanity: in two there was improvement; in four there was no apparent alteration in the mental disorder. The most marked change occurred in the case of resistive melancholia. The patient was a married woman, aged 36, who had been an inmate of the asylum for two years and three months, when this special treatment was commenced. She had not improved, except in her bodily health, which was excellent; mentally she appeared to have sunk into a state of hopeless insanity. She had ceased to speak for at least a year previously, sat with her mouth pursed up, lookingly fixedly on the ground, did no work, and paid no attention to anything going on around. Early during her residence in the asylum the water cap had been applied to her head and water circulated through it at from 110° to 115° F., but this treatment was soon stopped as it did not appear to act beneficially.

On January 6th, 1893, myelin was begun in teaspoonful doses thrice daily before meals. On January 24th the following note was taken: "On the third day after the medicine was commenced, the patient became decidedly more active in mind, and since then the improvement has increased. Thus she now sits down to sew of her own accord, and does anything she is asked to do without pressure. On the third day, also, she began to speak, but only uttered a few words, and after being urged. On the fourth day the myelin was increased to two teaspoonfuls thrice daily. For some days after this she spoke somewhat freely and sensibly in answer to simple questions, but afterwards she got duller and spoke less." On Feburary 8th it was noted that she still spoke occasionally and correctly, but that at other times she was rather obstinate, though she did as she was told without delay. At this date her weight was increased by two lbs. The myelin was continued till June 14th, when it was definitely stopped, and resumed after some days on three occasions. No distinct effect was, however, observed as a result of these intermissions and resumptions, except that latterly she btcame more excitable. About five weeks after the myelin was last given, the excitability, which had rather increased, culminated in her breaking several panes of glass. Since then she has been calmer, but has once more ceased to talk, though she continues to work, and shake hands with anyone who puts out his hand to her. Considering the case as a whole, it is no doubt clear that patient had fallen back to some extent; still there remains improvement, when her present state is contrasted with what it was before the myelin was commenced.

The other patient, who has improved, is a woman, aged 60. She was admitted on Feb. 10th, 1893, laboring under profound melancholia of thirteen weeks' standing; she refused food and was suicidally disposed. There was also paralysis agitans of the right arm. Treatment of an ordinary kind was carried out till April 1st. There was then a little improvement, but it was not marked. She still required compulsion to take food, and it was necessary to keep her under observation. She was now ordered myelin in teaspoonful doses thrice daily. Under its use there was soon more obvious improvement, as was shown by her no longer requiring compulsion at meals, and by the alleviation of the mental depression. But the earlier rate of improvement was not maintained, and the meylin was stopped on May 6th. Since then her progress has been slow but satisfactory, though she cannot be considered well.

In this case the benefit derived from the myelin is less clear than in the first one, but it is probable that a part of the decided improvement should be ascribed to it. From a prognostic point of view the presence of the shaking palsy is not favorable to complete recovery. In the other cases of mental disease it was not clear that any effect was produced by the medicine, and it was, therefore, discontinued after a few days' trial.

In reference to the second group of patients, those, namely, who suffered from well-marked organic disease of the central nervous system, in only one could it be said that there was definite improvement under the use of the myelin. This was the case of chronic myelitis. The patient's power of walking was markedly improved for some weeks, but this change for the better was not maintained, and he gradually relapsed into his previous condition. No clear alteration, either for the better or the worse, was observable in any of the others.

These, then, are the results of my experience with this preparation. They cannot be said to be either definite or striking. And yet the impression remains on my mind that there is a constitutent in the brain of the sheep, and doubtless also of other animals, which acts as a stimulus to nerve tissue cell and fibre in the human subject in certain morbid states of these structures.

It is probable that more decided beneficial effects will follow the subcutaneous injection of extracts of nerve substance. Indeed, this is claimed for them by several physicians.

But it appears to me to be premature, especially in the case of such a disease as epilepsy, to record "cures" *soon* after this or any other

method of treatment has been adopted. Where there is improvement or apparent recovery, the powerful influence on some minds of the use of a new remedy, especially if there be anything peculiar in its nature, with the consequent reaction on the bodily disease, should always be remembered. When seeking to estimate the value of treatment in any case this should be carefully considered, but more particularly when the morbid change is in the nervous system; not seldom the psychical is really the chief remedial agent. For the most part, the published statements representing the action of injections of the extract and emulsion—for both have been used subcutaneously—have been somewhat vague and general. It is desirable that careful accounts of cases, detailing the condition before and after the treatment, should be recorded, and that where there is improvement a reasonably long time should elapse after the subsidence of the symptoms before the patient is pronounced to have been cured.—Alex Robertson, M.D., in *Br. Med. Jour.*

## THE VARIATION IN THE VIRULENCE OF PUERPERAL INFECTION AND THE LOCAL TREATMENT OF PUERPERAL FEVER.

Investigation demonstrates the fact that in the greater number of cases of puerperal infection the endometrium forms the gate through which the infectious micro-organisms and their products are admitted into the system. It is not denied that wounds of the perineum, vagina, or cervix, which have become septic, may produce fever or are occasionally the cause of a general sepsis; but usually the infection remains local in these cases and the septic germs do not travel much beyond the immediate margins of the wound. If the endometrium is the seat of the sepsis, then the micro-organisms rapidly extend their field of devastation, and, easily penetrating the large veins and lymphatics, soon overwhelm the general system. Therefore Bumm concludes that vaginal or perineal wounds are of a subordinate importance in the treatment of puerperal fever, and the efficiency of the therapy depends mainly upon the efficiency of the intra-uterine treatment.

The most brilliant and constant rewards from intra-uterine treatment are observed in puerperal endometritis originating from a decomposition of retained secundines. The rapid decline of the fever after the removal of these putrid masses proves the views of those correct who hold that in these cases the fever is produced through the absorption of the products of decomposition—a putrid intoxication.

The frequency with which chills and temperature elevations succeed the removal of the retained placental remnants led Bumm to precede the operation by a thorough irrigation of the cavum uteri with several quarts of boiled water, thus washing away the soluble products of decomposition, which otherwise might be absorbed by the denuded tissues. Since the introduction of this method these unpleasant disturbances have diminished in frequency. Antiseptic solutions, as bichloride of mercury, lysol, or carbolic acid, were found to possess no advantage over boiled water. If the intra-uterine decomposition has extended over several days the results are less gratifying and lasting. The temperature will soon rise again, the putrid odor of lochia returns, and a microscopical examination of the uterine discharge shows numerous bacilli. The cause of these relapses is the condition of the endometrium; this membrane has become necrotic and harbors myriads of micro-organisms. A simple removal of the decomposing placenta does not suffice in these cases, and a lasting cure is only attained after a thorough curetting of the uterus and tamponade and drainage with iodoform gauze. There may exist simultaneously with the putrid intoxication a septic form of puerperal fever. Then the lochia have a putrid odor, but besides the bacteria of decomposition they also contain streptococci and staphylococci. In these cases the local therapy may prevent the continuous absorption of the putrid material, but the progress of the sepsis continues unaltered.

The author next discusses the septic form of puerperal fever, when septic germs, generally streptococci, invade the organism. The lochia are sero-sanguinolent or sero-purulent, and in the later stages wholly purulent; the quantity is less than in putrid endometritis; its odor is sometimes mawkish. Streptococci are present in variable numbers, proportionate to the severity of the infection.

In these cases the local therapy, according to Bumm's experience, is decidedly unsatisfactory and uncertain, no matter the means employed. The author has disinfected the uterus with every known antiseptic; he has curetted and afterward applied concentrated solution of carbolic acid or iodine, tamponade of the uterus, and intra-uterine suppositories of idoform—in short, all and everything ever advocated was tried, only to find that while in one case improvement followed, the very next one was entirely uninfluenced by the remedies employed. He says that if we meet a case of puerperal fever in the early stages it may be justifiable to resort to intra-uterine treatment; but he expects but seldom any benefit from it, and has seen cases which were decidedly aggravated.

The inconstant results in different cases are due to the variable virulence of the infectious micro-organisms. The highly virulent forms penetrate the tissues with astonishing rapidity and hold the

gained ground with great tenacity. Schimmelbusch publishes experiments in which fresh-made wounds inoculated with streptococci and anthrax bacilli were immediately cleansed with strong disinfecting solutions, yet the animals perished from the infection. Bumm found that virulent streptococci penetrate the tissues at a rate of two centimetres in six hours, and in some experiments they could, after so short a time had elapsed, already be demonstrated in the general circulation.

It must be seen that in such highly virulent infection local treatment must be inert. We are too late; the poison is out of our reach, and a uterine douche has no more potency than would have the painting of a disinfecting solution upon an erysipelatous eruption. If the clinical symptoms show a spreading of the sepsis (pelvo-peritonitis, metastatic abscesses) nothing can be expected from local treatment. Yet, a simple uterine douche is fraught with danger, as new wounds are of necessity made, old ones re-opened, or infectious thrombi may be driven into the general circulation.

If the infectious germs are of low virulence, then the septic process remains localized, causing only a septic endometritis, and with the expulsion of the necrotic decidua the disease has run its course. In these cases the washing-out of the uterus sometimes produces a rapid decline of the fever. But more frequently the course of the disease is uninfluenced by this treatment; the fever continues until the sepsis has localized itself and the necrotic tissues are cast off.

Thus it may be seen that in the truly septic type of puerperal fever local treatment has only a limited field of usefulness, and that intra-uterine manipulations are often accompanied by danger. Bumm has observed serious accidents following intra-uterine treatment, and, aside from sublimate and phenol intoxications, he mentions two cases in which death was undoubtedly due to simple intra-uterine irrigation.

The liberal administration of the ergot of rye is finally warmly praised by the author. The drug is given with the onset of the fever, and continued until the temperature has again become normal. Miscroscopical examinations of septic uteri have shown that the sepsis does not spread uniformly in all directions, but that where the tissues are dense and firmly contracted the germs are absent, while in the loose connective tissue and vascular structures they abound in immense numbers.

Now, supposing two women infected with an equal number of equally virulent cocci, it is undeniable that the woman who has a firmly contracted uterus is less likely to succumb than the one with a large and flaccid organ. In the former the sinuses are obliterated by firm muscular contraction, while in the latter the projecting thrombi and soft, succulent tissues form a nidus in which the cocci grow and travel without hindrance.

That firmly contracted tissues present a mechanical barrier to the spread of sepsis is demonstrated by the relative rarity of puerperal fever in abortion and the great virulence of the sepsis in twin pregnancies. A good illustration and verification of this theory is also observed in cases of erysipelas, in which a strip of adhesive plaster firmly bound around the margin of the eruption forms a neutral zone which the minute foes of destruction cannot transcend.—Baumm, in *Centralb f. Gyn.; Am. Jour. obstets.*

## BLOODLESS OPERATION FOR HÆMORRHOIDS.

As hæmorrhoidal diseases of the rectum and anus are very common, and very often lead to very grave disturbances of the whole system, any line of treatment which will relieve or wholly subdue them, without any serious inconvenience or involving danger to life, will be welcomed by the profession.

At the beginning, it may be well to consider for a moment what we understand by the term "hæmorrhoids." From the etymology of the word we expect to find blood-tumors; but in strict truth, in very many cases of so-called hæmorrhoids or piles the vascular system is totally devoid of any implication whatever; the small neoplastic formations which present themselves along the base, annular rim or roof of the anus and rectum, being historically purely adenoid, papillomatous or vegetative. It is important that the anatomical distinction be made clear in this instance; for the treatment about to be commended applies especially, and almost solely, to those anal tumors which are, or were, entirely dependent on a diseased condition of the hæmorrhoidal veins, in other words, those which are of a veinous origin only.

Another important question arises with respect to the relative frequency of these anal varices, designated piles. Are anal varices, dilatation of the veins or those tumor-like formations, either internal or external to the external sphincter, essentially a pathological condition? and, as such, in all cases, does it require active, radical measures for its abolition? Very naturally, our course will be determined largely, in those cases by a definite answer to this question. If piles are all superfluous, neoplastic excrescences, then there can be no question as to our course in all cases.

During the past five years, I have made an examination of a very considerable number of supposed healthy recta on the living; and, in the dead-house, have carefully inspected under good

light a large number on the cadaver. It was found that in both more than fifty per cent. had veinous varices of the rectum. In many of the living, in whom varices of large calibre were numerous and extremely turgid, they never in their lives suffered from piles in any form, that they were aware of. Therefere, it seems to me that the hœmorrhoidal dilatation in man is rather a physiologically degenerative condition, which, in late life, is a source of no inconvenience, but which, at middle age, is often attended by or associated with such complications as to render it a distinct pathological lesion.

This view is further supported by the fact that cutting out, injecting or ligating of sundry hæmorrhoidal masses will not in all cases cure the disease. The varicose state of the upper rectal vessels remains, and nothing is wanted to promote their return but the exciting circumstances which caused their irritation in the beginning.

### COMPLICATED HÆMORRHOIDS.

*Diseased* hæmorrhoids may be divided into three principal classes: (1) inflamed hæmorrhoids, (2) ulcerating hæmorrhoids, (3) bleeding hæmorrhoids.

Besides, we say internal or external, according as they are without, or outside the external sphincter, or internal to it.

When internal medications has not succeeded, and, when palliative, topical applications have failed to afford permanent relief in chronic hæmorrhoids, in their radical treatment by the *bloodless* operation the majority may be cured, or at any rate greatly relieved.

### THE ADVANTAGES OF THE BLOODLESS OVER OTHER SURGICAL MEASURES IN TREATMENT.

(1) The operation may be performed with a less number of assistants, and is very simple in its technique.

(2) As there is no division of the tissues, the dangers of infection, of abscess, ulceration and fistula are eliminated.

(3) There is no danger from the immediate loss of blood during operation or of serious secondary hæmorrhage.

In all cases, the evening before operation the patient should have the colon well cleared of all fæcal matter by a brisk purgative.

In the morning, when everything is in readiness, the patient should be given from two to four ounces of whisky, the quantity to be gauged according to previous habits, its effects, etc. After having cleansed, shaved and scrubbed the integuments over the ischio-rectal fossa, we are prepared for the first step in the operation, which is, effective *cocainization*, hypodermically applied. Local analgesia, when practical, is much more preferable to pulmonary anæsthesia. Our patient is more manageable, and there is no spurting of the fæces over the operative field during manipulation.

Cocainization complete, the next and most vital step is complete and thorough *anal dilatation.* Without this being efficiently carried out, all else is a failure; but, to be painless and safe, it must be gradual and steady, or we shall rupture the muscle and leave our patient incontinent. In chronic, old cases, wherein, owing to malnutrition and interstitial changes in the sphincter, it has parted with its elasticity, laceration is very easy if we do not exercise caution.

Thorough anal dilatation accomplishes two purposes of great importance: First it opens widely the anal portal, and so paralyzes the levator-ani that the lower fourth of the rectum—that part always implicated in hæmorrhoids — prolapses through the open vent, when it can be most minutely inspected and radically treated. This, however, is of minor importance compared with the profound effects which dilatation produces on the rectal disease. It is not material whether the hæmorrhoids belong to the inflamed, intensely itchy or irritable type; this stretching exercises a most salutary influence on them.

The third step, in simple hæmorrhoids, will be the separate treatment of each tumor by forcible pressure-massage. Before this is commenced, the entire cluster should be wiped clean and dry, and be then freely mopped with the cocaine solution. Now each hæmorrhoid is separately seized, close to its base, firmly between the tip of the thumb, index and middle fingers; first, put on a moderate but full stretch; then twisted; and finally so completely crushed that it is reduced to a pulp, and none of the investing tunics remain except the mucous membrane and its under stratum of fibrous tissue. When this has been completed the entire mass is again pressed up inside the sphincter, a suppository of opium introduced, a pad and bandage applied, when the patient is returned to bed. An active but painless inflammation follows, and, as a rule, within two or three weeks' absorption and atrophy have so reduced the vascular masses that nothing now remains but their shrunken, diminutive stems

The ulcerative and hæmorrhagic varieties, along with cocainization and dilatation, must have superadded a special therapy appropriate to each.

Since January of this year, 1893, 52 cases of hæmorrhoidal disease have come under my care, in the hospital and outside. Many have come to me who feared anæsthetics, and others who were averse to having any cutting operation perfermed. In all, the permanent results have been eminently satisfactory; and from what previous experience I have had with this procedure, there is no reason to believe that the cures will not be as durable as those effected by other more sanguinary measures,

which are not without danger in themselves, and are sometimes followed by the most lamentable consequences.

Of my late series of cases, 17 were men and but 15 women. Fourteen were cases of simple, chronically inflamed hæmorrhoids, nine ulcerating and itchy, and nine bleeding. Four of the female cases were of the bleeding varieity. Of the ulcerating type, in six of them there was a well-marked tubercular cachexia.—Thomas H. Manley, M.D., in *Boston Med. and Surg. Jour.*

## THE ALCOHOL QUESTION FROM THE PHYSICIAN'S STANDPOINT.

Dr. Adolf Strümpel, *Berliner Klinische Wochenschrift*, speaks about alcoholism with the earnestness of one who thoroughly knows his subject. Touching but lightly upon the legal and national economy phases, he recalls the manifold and close connection between alcoholism and crime, clearly shown in the observations of every-day life and endorsed in plain figures of statistics. As a physician he well knows that the relation between alcoholism and crime is often viewed in a false light, as, when both abnormities occur, alcoholism is often the cause of crime, while in reality very often both are only the necessary co ordinated consequences of an hereditary mental tendency, of a psychopathic degeneration.

As to the importance of beer as a source of nourishment, it cannot be denied that the body receives a considerable quantity of nourishment when beer is freely used. But how do the food value and the price of beer compare? In Bavaria a workman receives about four quarts of beer for one mark (twenty-five cents). The four quarts contain, liberally rated, two hundred and forty grammes of carbohydrates and scarcely thirty-two grammes of albumin. But for the same money he receives, if he buys bread, two thousand grammes of carbohydrates and two hundred and fifty grammes of albumin. Therefore, the cheapest beer, considered as a means of nourishment, is about eight times as dear as bread. The showing is worse still if beer is compared with potatoes and beans. Strümpel has known of workingmen who spent one-sixth of their small income upon beer for their personal consumption.

The albumin-sparing action of alcohol, formerly much quoted, has been shown by more exact investigation to be by no means constant. It appears rather that, under like circumstances, there is even a slight increase in the destruction of albumin.

Neither accident nor special scientific inclination led Dr. Strümpel to devote special attention to the alcohol question, but the force of the urgent facts daily apparent to the busy practicing physician.

The present epoch of medicine has rightly been named the etiological. In the diagnosis of the causes of disease physicians now see one of the highest aims of their investigation, because they know that thus alone can the road not only to cure, but to prevention of disease, which is far more important, be prepared.

Those organic changes which Strümpel puts first in considering the baleful effect of alcoholic drinks upon the health are, disease of the heart-muscle and its nervous apparatus, disease of the arteries and of the kidneys. He thinks the frequent occurrence of chronic heart and kidney trouble from continuous use of alcohol is not sufficiently recognized by physicians. Yet these forms of alcoholism are specially important, apart from their frequency, because they are caused not only by the concentrated alcoholic drinks, but especially by continued intemperate use of beer; hence these are seen in much larger classes of population, not only in the poor and mentally feeble classes, but in well-to-do, cultivated classes. Nothing is more false than the idea that alcoholism is lessened when beer crowds out other alcoholic drinks. Under the very mask of an apparently light, palatable, and yet nourishing drink, alcohol has made its baleful entrance into circles which had otherwise remained closed to it.

In the use of beer it is not only the alcohol which is harmful, but the great amount of fluid introduced into the system. Muscular weakness of the heart is specially found among heavy beer drinkers. The great amount of fluid which these men daily impose on their circulation is almost incredible. Even a daily amount of three to four quarts—*i. e.*, eight pounds of fluid above the usual quantity—cannot remain constant without an influence on the heart. But Strümpel knows that, at least in Bavaria, there are persons whose calling exposes them to special temptation to drink, who consume for years almost daily eight to ten quarts—*i. e.*, sixteen to twenty pounds of fluid added to their bodies. It is not difficult to understand that such an added burden to the circulation leads first to hypertrophy and then to a palsy of the heart-muscle. Of course, the great addition of carbohydrates, overloading the blood and tissues with food products, is also harmful.

Kidney diseases are also especially frequent among heavy beer drinkers. Degeneration of the kidney epithelium and contraction of the kidneys are well-known, but acute alcoholic nephritis is less known. It is acute in the sense that here the sum of long-continued chronic poisonous action leads to a severe functional disturbance of the kidney epithelium. The chronic alcoholic nephritis is usually not of a hæmorrhagic nature. It is often accompanied by severe œdema, may lean rapidly

to death, or may become a chronic nephritis. Complete cures appear to be rare.

In closing, Dr. Strümpel calls attention to an interesting group of diseases in whose cause the excessive use of alcoholic drinks plays a large part, even if one still little understood. In addition to the numerous arresting, poisonous actions which destroy the organic cells, there belong also certain influences upon the course of the general process of metabolism, — gout, diabetes mellitus, and obesity.

Strümpel thinks physicians have it in their power to prevent untold misery and save many lives, if they take hold and work earnestly in this cause. The family physician should specially take care to forbid giving alcoholic drinks to children. It is incredible what folly is committed in allowing children such drinks. Strümpel had a child of five years brought to him with alcoholic polyneuritis, who had received a quart of beer daily !— *Hygienic Gazette.*

## ERGOT IN THE TREATMENT OF PERIODIC NEURALGIAS.

Dr. William H. Thomson read a paper on this subject, in which he gave the histories of a number of cases of severe periodic neuralgias in which the symptoms were promptly relieved by the use of ergot in large doses. In all of these cases the disease was of long standing, and the usual remedies had been employed, without avail. Dr. Thomson said his method of administering the ergot in migraine was as follows : The fluid extract of the drug is employed, combined with an equal quantity of elixir of cinchona, to obviate its tendency to cause nausea. Two drachms of this mixture is to be taken in water as soon as the premonitory symptoms of the headache are noticed, and the patient is advised to lie down and keep very quiet. If, after an hour, the headache continues, a second similar dose is taken, and then a third in another hour if necessary. As nausea is such a general accompaniment of this affection, it is provided that if either of the doses be vomited, it should then be taken in an enema of two ounces of water. This medication, the speaker said, rarely fails to arrest the attacks, even in long-standing cases, and with a preventative course of intestinal antisepsis in the intervals, the relief from the malady has often proved pernament.

The following is the history of one of the cases reported by Dr. Thomson. The patient was a young man who suffered from headaches beginning at the occiput and extending to the temples ; they generally came on about 11 a.m. daily, and gradually grew worse until they reached their acme about 4 o'clock in the afternoon, after which they subsided, without, however, entirely disappearing. His physician failed to check their increasing severity, although on one occasion he administered thirty-grain doses of chloral with thirty grains of potassium bromide every two hours for two doses, with little more effect than a slight drowsiness being produced. The next day, the patient becoming maniacal from the pain, sixty-five grains of chloral, sixty of bromide, and thirty of antiyprin were given within two hours. This caused a profuse sweating and moderate sleep. The third day a consultant was called, who recommended that quinine and Warburg's tincture (which had been tried at the beginning of the treatment) should be resumed in large doses. Accordingly, sixty grains of quinine and two ounces of Warburg's tincture were given in twenty-four hours, with even worse afternoon paroxyms of pain than before. The next day the bromide, antipyrin and chloral were resumed, but no great relief was obtained. At this time he was seen by Dr. Thomson, who recommended drachm doses of fluid extract of ergot every hour for three doses, combining the first two doses with ten grains of quinine, and if the stomach rejected either of the doses, that the medicine be given per rectum. Soon after taking the first dose, the patient experienced a good deal of relief ; the second dose was vomited, whereupon it was given per rectum, this was soon followed by a complete subsidence of the pain, with profuse perspiration. This medication was repeated for three successive days, with final cure of the headaches. The second ten grains of quinine produced decided symptoms of cinchonism.

Dr. Joseph Collins said that he has recently had occasion to try ergot in several cases. In one case the patient had been given huge doses of Warburg's tincture, quinine, bromide and potassium iodide without any benefit. He was then given ergot, and a marvellous improvement at once followed. This was three months ago, and the man has had no return of the symptoms since. In another case the patient was a lady, aged forty years, who had long been under treatmeut for migraine, the pain being of a boring character and very difficult to relieve. In this case the value of ergot in the treatment of this affection was discovered accidently ; it was given to check a menorrhagia, and at the same time it relieved the headaches.

Dr. Thomson, in reply to a question, said our present knowledge is not definite enough to form any idea as to how ergot acts in these cases. He simply gave it as an empirical remedy. Furthermore, his paper refers entirely to neuralgias that are definitely periodical. These are usually very severe, and entirely different from the ordinary intermittent headaches. He referred to the fact that quinine even in small doses, when it is combined with ergot, appears to produce cinchonism much

more quickly than when given alone. In only one of the cases reported was there any antecedent history of malarial infection; in that case the patient simply gave the history of having resided in a malarious district. Very likely there was a malarious element in the other cases of which the nervous symptoms were only manifestations. Dr. Thomson also referred to the fact that intercostal neuralgia is often accompanied by sciatica; also the occurrence of sciatica after pleurisy. The latter combination he has noticed in about twenty cases.—*Bost. Med. and Surg. Jour.*

## MEDICAL NOTES.

*Antipyrine*, Prof. Hare says, aids the elimination of uric acid from the economy.

Cannabis indica, Prof. Hare says, will often be found to be very useful in cases of *Migraine*.

A case of *Scirrhous* or *Atrophic Cancer*, seen only in the latter stages of the disease, should not, Prof. Keen thinks, be interfered with.

As a rule, Prof. Keen says, in every four out of five cases of *Fistula in Ano*, the patient will be found to be tuberculous.

Prof. Parvin thinks that the *Involution of the Sexual Organs* after confinement takes place more rapidly and satisfactorily if the mother nurses her child.

Fifteen to twenty grains of bismuth and one to two grains of carbolic acid administered every hour or two, Prof. Hare says, will be found to generally stop *Reflex Vomiting*.

Cannabis indica, according to Prof. Hare, will be found to be a very useful drug in stopping the *Cough of Phthisis*, and it possesses the advantage over opium in that it is not so depressant to the system in general.

Camphoric acid, according to Prof. Hare, is the best drug that can be used in controlling the *Night-sweats of Phthisis*. It should be taken in doses of twenty to thirty grains, and two or three hours before the time that the sweats generally come on.

*Anteflexion of the Uterus*, according to Prof. Montgomery, is of most frequent occurrence in women who have never borne children. It is also the displacement which is found of most frequent occurrence in the sterile woman.

The oxalate of cerium, either alone or combined with bismuth, Prof. Hare says, will very often be found to stop *Excessive Vomiting*. Especially has this been found so in such cases as are due to a hyperacidity, or to an irritation of the mucous membrane of the stomach.

Prof. Parvin calls attention to the fact that in opening an *Abscess of the Breast*, the incision should always be made longitudinally and not transversely. For, he says, when the opening is made by a transverse incision, more milk ducts will be destroyed than if the incision had been made longitudinally.—*Coll. and Clin. Rec.*

THE PARASITISM OF CARCINOMA, AS ALSO THE SARCO-, MYXO- AND MICRO-SPORIDIA OF MUSCLE TISSUE.—L. Pfeiffer (*Centralb. f. Bakt. u. Parasitenk.*, Vol. XIV, Nos. 4 and 5, 1893), in an article illustrated by numerous photomicrographs, describes the various parasitic diseases allied to carcinoma as follows:

Three tumors due to sporozoa present, at one stage of their development, the same type of cell as is found in carcinoma. The sporozoa belong to the protozoa, and are related to the infusoria and the amebæ. They are widely distributed, scarcely any animal being free from them. The most important forms are *coccidia*, *sarcosporidia*, *amebasporidia* and *hemosporidia*. The gregarinæ belonging to this class are, as a rule, not pathogenic. The *coccidia* have nothing to do with cancer, for in this tumor the "lasting cyst" (dauercysten) form, which is so constantly seen in the rabbit, is not assumed; nor does the coccidium present the polymorphic adaptability presented by the carcinoma parasite.

The author believes the Meischer's tubes found in the muscle of the hog, and representing the *sarcosporidia*, to be produced by infection from a parasite residing in the kidney of a form of helix. The contents of a Meischer's tube consists of innumerable sickle-shaped bodies, with a large well-stained central nucleus. Examined in filtered human saliva, the sickle-shaped body changes into an ameboid cell, which closely resembles an epithelial cell. If a tube bursts *in situ*, a tumor is likely to form, which bears an appearance almost identical with cancer. Inoculation of rabbits leads to severe hæmorrhagic inflammation. The hypodermatic injection of a glycerine extract of a large quantity of the sickles induces toxic symptoms—fever, collapse, convulsions, death. In this connection it is to be remembered that in malaria the chill occurs as the same time as the escape of the young amebæ from the red blood corpuscles.

*Microsporidia* are found in the calf and belly muscles of the marsh tortoise. The rupture of one of the cysts formed by these organisms does not set free a large number of embryos, but a single ameba. The microsporidia are also the cause of the dreaded silkworm disease *pebrine*.

The *myxosporidia* have a complicated structure. Primarily, the spore consists of a bivalve envelope in one end of which are found two "polar cap-

sules," which stain readily. With proper stains a filamentous process can be seen springing from these polar capsules. Furthermore, the spore contains a protoplasm not easily stained, which forms a mass, which passes out as a free ameba when the spore bursts.

The proliferation of the sporidia is accompanied by budding of the muscles in the invaded area, and a disappearance of newly formed muscle cells. At one period of the process the parasites have the appearance of epithelial cells. In the hog the tumors produced by the parasites do not attain a large size, but in the horse may become as large as the fist. The tumor grows at the expense of the newly-formed muscle tissue, which the author thinks is produced by a peculiar irritation set up by the parasite. The parasite consumes the new muscle cells, and takes their place in the tissues. The fact that there are undoubted parasitic tumors in which the epithelial cell is a parasite, makes it improper to regard an accumulation of epithelial cells in an abnormal situation as a criterion of cancer. The cancer parasite is probably allied to the sporozoa, and probably most akin to the group of *amebasporidia* established by Schneider.—*Univ. Med. Mag.*

"Blue-Blooded Aristocracy."—There are a great many expressions in our language, and in every language, that seem to have no meaning. One wonders why, generation after generation, people keep repeating them, everybody at the same time wondering how they came into existence. It has been the delight of antiquarians delving in the musty records of the past, to hunt out some custom or fact that throws light at once upon the life of the past and fixes in the minds of the present a luminous explanation of the origin of some philologic curiosity. Sometimes the explanation is not forthcoming, because, lying so near at hand, it cannot be found by antiquarians. There is one such expression that by its very name implies a physiologic or pathologic origin, and yet, so far as we know, has never been explained or sought to be explained as due to any physiologic cause. This phrase, "blue blood," as applied to aristocratic folk, seems a palpable absurdity, because, physiologically, of course, the constituents and color of the blood of aristocrats cannot differ much from that of working and plebeian people. How, then, did it come into use?

Every oculist of any alertness and closeness of observation-powers must have daily noticed, as school-imprisoned and behoused patients come into his office, the fact that in women, girls, and children, severe and long-continued eye-strain produces leanness and pallor of the temples, with the blue veins plainly visible at ten feet distance. Sometimes these blue lines of the temples—as indicative of eye-strain as those of the gums are of lead-poisoning—curl down beneath the eye and along the cheek. Every oculist must have also noticed how soon after getting proper spectacles the temples fill out, the blue lines disappear, and the whole expression of the eyes and face changes. Pain, suffering, malnutrition, at once disappear. The appetite, especially for breakfast, long lost, returns, sleep is quiet and refreshing, and growth recommences. A tremendous difficulty has been overcome and life, as it were, is again resumed.

In the Middle Ages especially, but also in modern times, women, girls, and children of the upper classes have been housed more than the men and older boys. This housing necessitates continuous employment with books, sewing, or other ocular labor at near range. The ametropia that with out-of doors living can be borne by the compensatory powers of the organism, cannot be endured when there is added the extra burden (and, evolutionally, the abnormal function) of continuous accommodation or work at near range. Hence anæmia, the pallid skin, the "pinched eyes," the blue or the swollen veins of the temples, blue circles about the eyes, etc. Heredity of these abnormal eyes—a most common fact—coupled with the inherited subnormality of general nutrition that results both from the ametropia and the lack of physical exercise, does the rest of the work, and the daughters and wives of the castle-owners and of the rich are at once seen to be "blue-blooded." But the explanation shows the fact to be a sign of disease and a thing to be ashamed of, not, by any means, one to be proud of.—*Med. News.*

A New Treatment of Mammary Abscess.—Tweedy adopts Weber's method of treating mammary abscess. An early and free incision is made in the breast, radiating from the nipple, and situated at the most dependent part of the abscess. The finger is then inserted into the wound, and the gland structure broken down. This manipulation, it is stated, will have no bad effect on the healthy tissue. By this process several new cavities will be found, and these, in turn, are to be opened by an incision similar to the first, and the whole thoroughly douched with some antiseptic solution. The membrane lining the several cavities is to be curetted, and the debris removed by a second douching. Strips of gauze sufficient to fill every interstice of the abscess are to be steeped in a one per cent. solution of carbolic acid, and inserted by means of a long sinus forceps and probe. A large flat sponge is then placed on the breast, and tightly bandaged thereto for twenty-four hours. After this period the dressings are removed, and without further irrigation the cavities are again packed, the sponge and bandage being reapplied as before. On the third day process is repeated. In the fourth dressing the gauze packing is dispensed with and the incisions are

drawn together and dressed antiseptically; the sponge and bandage are reapplied. This last process is repeated every twenty-four hours until healing is complete; this usually takes place about the tenth day. In one of the author's cases the whole process was accomplished without the aid of anæsthesia. In only one of his cases was it necessary to make a second incision. The incisions are never longer than is necessary to admit a finger. Iodoform gauze should be used for packing the wounds. The author only having treated five cases, cannot say definitely what portion of the above treatment is essential, but he is strongly inclined to the opinion that curetting can be safely dispensed with.—*Med. Press and Circular.*

The Treatment of Eclampsia.—From a new study of this important subject Dr. Charpentier, of Paris, has been led to draw the following conclusions: As every albuminuric pregnant woman is liable to eclampsia, and as milk diet gives such marvellous results in albuminuria, and especially in the albuminuria of pregnancy, one should examine with the greatest care the urine of all pregnant women; and if albumin be found in no matter how small a quantity, milk diet, absolute and exclusive, should be instituted at once. This is the best prophylactic treatment of eclampsia. 2. Given a case of eclampsia, if the patient is strong and vigorous and much cyanosed, begin by bleeding to the extent of 400 to 500 grams. Then administer chloral, at the same time getting the patient to begin on milk as soon as possible. 3. If the patient is delicate, and the cyanosis less marked and the attacks less frequent, tne treatment should be limited to chloral. 4. Wait for labor to come on of itself, and allow it to terminate spontaneously, whenever possible. 5. Cases of tardy labor due to uterine atony should be terminated by the forceps or version, if the child be still living; or by cephalotripsy, basiotripsy, or cranioclasis, if dead. 6. Wait before any such interference until the maternal parts are in such condition that it can be done without violence, and therefore without danger to the mother, viz., until complete dilatation of the cervix. 7. Reserve induced labor for the exceptional cases in which treatment by drugs has wholly failed. 8. Cæsarian section, accouchement forcé, and above all, accouchement forcé with deep incisions of the cervix, are to be rejected absolutely.—*Archives de Tocologie.*

The Opium Treatment of Epilepsy.—This treatment was suggested by Dr. Paul Flechsig, and I have been using it in my clinic since last spring, in some cases with surprisingly good results. I have already told about it in the details of the method. I present to you to-day two patients showing its good effects.

I.—This patient is a man twenty-three years old, and has had fits for nine years. The fits are general epileptic convulsions of a physical kind, and he used to have four or five a month. He was brought to Charity Hospital last April in status epilepticus. He was put by Dr. Collins on extract of opium, increased to fifteen grains a day, for six weeks, and then on bromide thirty grains four times a day. Under this treatment he went from June until last Saturday without any fits. He has just gone four or five days withous medicine and had a fit Saturday. His general condition is very good, and he is vastly better than he has been for years.

II. — Here is another case on which I have used the opium treatment. The patient is a colored girl fourteen years old who has had epileptic fits of the *hautmal* type for four years. She has had as many as a dozen fits a day. The previous treatment before the opium treatment is not known. She was put on this treatment by Dr. Collins for six weeks and then was put on bromide and has had no more fits.—*The Post Graduate.*

The Proper Hours of Sleep.—Man in common with most of the animal creation, has accepted the plain suggestion of nature that the approach of night should imply a cessation of effort. If he ignores this principle, his work is done against inherited habit, and, so far, with additional fatigue. It follows, too, that he must use artificial light and sustain its combustion at the cost of his own atmosphere. Naturally, therefore, when he does rest, his relief is not proportioned to his weariness. As in many cases, however, sensation is not here the most reliable guide to judicious practice. Established custom affords a far truer indication of the method most compatible with healthy existence. The case of the over-worked and the invalid lends but a deceptive color to the argument of the daylight sleeper. In them excessive waste of tissue must be made good; and sleep, always too scanty, is at any time useful for this purpose. For the healthy majority, however, the old custom of early rest and early waking is certain to prove in future—as returns of longevity and common experience alike show that it has proved in the past—most conducive to health and active life.—*London Lancet.*

Some Characteristics.—If patient has head always turned to one side, *cina;* if patient sleeps with the knees apart *cham.*, and *platina* if occasioned by extreme genital soreness. If patient sleeps with legs stretched out to full length, *puls.* and *rhus;* if patients bend their heads forward, *sta; hisagria*, and if backward, *hyoscyamus;* if patients lie with hands on the belly, *puls.;* if patient sleeps with one leg drawn up and the other stretched out, *stannum;* if patient dreads to

go to bed because bones will then feel as if loaded down with lead, *lachesis;* if patient has enlarged pupils, think of *bell.*, if contracted, *opium;* if patient has one pupil larger than the other, *gels;* if patient has phthisis, there will be retraction of the corners of the mouth in the last stages. If patient gags or vomits at the thought of food, *colchicum;* if patient has hot pale cheek, and a cold red cheek, *moschus;* if patient in confinement "cusses" you, spits in your face, and pulls your whisker, *cham;* if patient is a baby, sleeping all day and crying all night, *lycop.;* if patient has cracking in ears when riding or talking loud, *aloes;* if when eating, *nitric acid.*—Dr. Frank Kraft, in *Am. Hom; Hahneman. Monthly.*

Self-Multilation in China.—The *Medical Press* gives the following account of a curious custom which only the ancestral worship of China could account for:

"The dearest hope known to an elderly Chinaman is to have descendants, and the main reason of this appears to be that when he comes to die his last days may be cheered by the conviction that he has left a goodly following of his own flesh and blood to worship, as is the custom in China, at his grave. But even the calculations of the "Heathen Chinee" are, in this respect, sometimes prone to be wofully thrown out of gear by a concatenation of circumstances, the occurrence of which could not have been foreseen. Of course, the Chinese father relies on his sons to propagate the race, and when there is only one son left upon whom this responsible duty devolves, it is obvious that much should be made of him. Facts go to show that sons are fully aware of the important position which in this particnlar they fill in the domestic circle, and consequently they expect and demand a full measure of consideration and regard from their male progenitors. Should it happen, however, that any serious quarrel arises between father and son, the son has it in his power to revenge himself to an extent which is absolutely unknown in the more civilized communities. Probably no one but a Chinaman could understand the anguish of a Celestial father who suddenly learned one day that his only son had by one swoop of a razor relieved himself of his penis and testicles! But this is the mode of relataliation which aggrieved Chinese sons adopt towards fathers who offend them. Dr. Coltman, of Pekin, has just recorded two cases in which, for the reason mentioned, the sons made a clean sweep of their generative organs.—*Bost. Med. and Surg. Jour.*

Caution to Anæsthetizers.—During a recent clinic by Prof. Hunter McGuire in the new amphitheatre of the College of Physicians and Surgeons, Richmond, Va., while chloroform was being administered to a patient on whom excision of portions of the bones of the leg was about to be performed, the patient suddenly stopped breathing, the face became purple, etc., while the heart continued to beat. In a moment, Dr. McGuire recognized that the condition was due to the dropping back of the tongue, obstructing breathing. With thumbs behind the rami of the inferior maxilla, he pushed that bone forward, thus lifting up the tongue, and the patient at once began breathing easily, and was kept thoroughly under the anæsthetic for the time necessary for the operation. While this procedure is not, by any means, a new one, it is worth while to record such incidents so as to keep the surgeon or physician well on his guard so as to act at the moment when by-standers are dazed at the shock of an impending accidental death. In short, in using an anæsthetic, keep your wits about you, and look out for the sudden emergencies.—*Virginia Med. Monthly.*

Hypodermic Injections in Neurasthenia.—Mathieu, *Gaz. d. Hop.*, in reviewing this form of treatment, is inclined to believe that much of its efficacy is due to suggestion similar to the effect of suspension in tabes, and to that of twenty or thirty different medicines in phthitis. He objects strongly to the use of organic liquids, but has not the same objections to the use of saline injections, as they can be employed without danger if proper antiseptic precautions are taken, and if the injections are made sufficiently deep. He thinks that there is no doubt that small transfusions of serum, to the extent of 25, 50, or 100 centimeters of liquid, raise the tone. He has obtained almost miraculous results in neurasthenia with a liquid composed of 4 grammes of phosphate of soda, 2 grammes of chloride of sodium, 20 grammes of neutral glycerine, and 80 grammes of water, but he does not attribute any specificity to the liquid. Recently, with two centimeters of the fluid, he resuscitated a neurasthenic who was scarcely able to leave his bed; but Mathieu added a strong dose of suggestion to the formula, and believes more in the latter than in the phosphate of soda.—*Brit. Med. Jour.*

The Transmission of the Ovum from the Ovary to the Tube (*Archiv für Gynäkologie*, Band xlv., Heft 2).—Lode first repeated the experiments of Kehrer and Pinner, injecting an emulsion of charcoal into the abdominal cavity of rabbits, and, like these authors, he was able, after a few hours, to demonstrate charcoal particles in the opened tubes. He next substituted ova of animals for the emulsion, using the ova of ascaris lumbricoides suis After a lapse of twelve hours large numbers of these ova could be seen in the dissected tubes. These investigations prove that the ciliary currents can propel the ova, not only from the ovary to the tube, but also from the

abdominal cavity. They show that the fimbriated extremity of the tube need not be in contact with the ovary during the expulsion of the ovum, and that the external migration of the ovum is certainly possible.—*Am. Jour. of Ob.*

A Sign of Breech Presentation.—When, in a woman who has passed the sixth month of pregnancy, a sharp pain is produced by placing the hand on the fundus uteri, it may be almost affirmed that there is a breech presentation. The fact is very frequent, although not constant, being present in about seventy per cent. of cases. The pain is sometimes spontaneous. How is it to be explained? According to Pinard, it is due to the irregular distention produced by the rounded mass of the head. If version is performed, the pain disappears.—*La Clinique Internal.*

An Important Omission.—The mothod in which many of our best writers dismiss the treatment of a case with injunctions to give tonics, diuretics, astringents, etc., is excessively confusing and misleading. They should always *name* the tonic, diuretic or astringent which has proved so useful to them, for there are tonics and tonics, astringents and astringents. Some are better than others, some are worse, but none act in identically the same way. Some heart tonics stimulate the heart by accelerating its beat; others by dilating the vessels and lessening its work; some astringents are powerful caustics; others gently contract the tissues and empty the blood vessels, and so on *ad infinitum.*

In reporting cases, always *specify* the remedies which, in your hands, have proved effectual.—*Med. Brief.*

Crude Petroleum in Vaginal Inflammation.—Després (*Gaz. des Hop.*, June 15th) has great belief in petroleum as a dressing. First, he found that it was preferable to coal tar and charcoal in the treatment of scirrhous ulcers of the breast. Then he obtained good results in cases of advanced uterine cancer, by injecting petroleum into the vagina. The foul discharges ceased at once. Now he finds that the same compound answers well for vaginitis. He uses 100 to 150 grammes of pure petroleum for one injection; it is in no sense a caustic. Two or three injections, one dasly, will cure recent vaginitis. The petroieum adheres to the mucous membrane, and soaks into the tissues, so that it acts as a permanent dressing. The patients do not complain of the odor of the compound, and it in no way affects their health.—*Br. Med. Jour.*

"Fever, unless it be high, requires no special treatment. In urgent cases only ought antipyrin to be given. As a rule, cold applications to the head will act well when there is a tendency to convulsions. Cold applications to the heart will reduce the temperature of the whole body. A warm bath will frequently do good. I do not advise bathing or handling the child much while the convulsion is on. When thirst is very great, small quantities of ice-water should be given often, or seltzer water, or vichy or apollinaris. Also water to which dilute muriatic acid has been added in the proportion of one to three or ten thusand."—A. Jacobi, M.D., in *Times and Reg.*

Medical Hints.—Many things must be worked out alone in medicine. Practice is but a series of trying positions that must needs require all a man's fortitude.

The physician must preserve a golden mean between his duties and his pleasures; must mingle with his patients socially without losing his dignity as their counsellor; he must command respect as well as admiration. To maintain dignified assurance, without falling into the vauntings of a boaster, constitutes the supreme talent of a physician.

When once the manifold duties and perplexing cares of a successful practice have been incurred, the physician will realize the advantages to be derived from physical strength—organic stamina. The mental anxieties that are the daily and hourly companions of the conscientious physician are a tax upon his strength of which the public knows too little.—*Columbus Med. Jour.*

Salicylic Acid as a Vermifuge.—Ozegovsy (*Nav. lek*, March, 1893) is reported by the *Union Medicale*, as strongly recommending the use of salicylic acid as a tenifnge. After a fast of twenty-four hours, the patient is to take at night thirty grams of castor oil. The next morning, at 7 o'clock, again fifteen grams of the oil are administered, followed by one gram of salicylic acid every hour until from eight to twelve doses have been taken. Should the tenia not appear at 1 p.m., another fifteen grams of oil must be taken. The author reports but one failure in twenty cases.—*Med. Rev.*

A. C. E. Mixture.—I fully believe it to be as safe an anæsthetic as any, and one by which the dangers of chloroform and the inconveniences of ether are alike avoided.—*Reeves.*

Rosacea:

℞—Ichthyol, . . . . . 2 parts.
Resorcin, . . . . . 1 part.
Collod. flex., . . . . . 30 parts.
—*Petrinio.*

For epithelioma, Morau, *Journ. de Méd. de Paris*, recommends the topical application of a saturated solution of picric acid in water.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, MARCH, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## IMMEDIATE TRACHELORRHAPHY.

In a very interesting and useful paper read by Dr. Henry C. Coe, of New York, at the recent meeting of the New York State Medical Society, the author states that he has changed his views regarding the above operation. He was formerly opposed to it, but recent experience has convinced him that under some circumstances it is not only beneficial, but is clearly indicated. On the other hand, he is not fully in accord with those who recommend immediate repair of *every* extensive laceration of the cervix. The ease with which it can be done has been over-rated. It is really a procedure requiring not only a certain amount of special skill and experience, but able assistance. That it will ever become a common operation with the general practitioner is improbable.

There are certain circumstances under which the accoucheur must expect a bilateral laceration of the cervix, especially in delivery of a large head through a rigid, partly dilated cervix, either by forceps or after version. The after-coming head is peculiarly liable to cause this lesion, especially in rapid delivery in *accouchement forcé.* The injury is often practically non-preventable, and is no reproach to the obstetrician. Even when Dührasen's incisions have been made there may be still a deep bilateral tear. If he expects such a tear, the surgeon should be on the look out for it, and should not mistake the resulting hæmorrhage for ordinary post partum bleeding from uterine atony. The profuse flow of light-red blood after the uterus is thoroughly contracted should point to the true site of the bleeding, which is verified by introducing a speculum and rolling out the cervix so that it can be thoroughly inspected. Under ordinary circumstances the bleeding can be controlled by introducing a plug of gauze into the cervix and holding it with one hand while the other compresses the fundus uteri; but occasionally this treatment is unavailing and valuable time would be lost in making persistent efforts to check it in this way, or with hot water. Under these circumstances we should decide at once to introduce sutures.

The object of immediate trachelorrhaphy is threefold, viz: 1. To control hæmorrhage; 2. To lesson the risk of sepsis; 3. To do away with the necessity of a secondary operation.

The accoucheur must be guided in his decision by: 1. The extent of the tear (*i. e.*, bilateral and through the vaginal junction); 2. The condition of the patient, who may be too weak after a difficult delivery to stand the additional manipulation; 3. His own skill; 4. The presence of proper light, instruments and assistants. It should not be forgotten that the most experienced obstetric surgeon may meet with such difficulties as to be obliged to abandon the operation.

Operation—The patient should be anæsthetized if possible. Two assistants are needed, one on each side. With the patient on the back, the operator introduces a large Sims' speculum. The anterior lip is drawn down with a volsella, aided by pressure from above. Locating the exact site of the tear the operator passes a large curved surgical needle (armed with silk-worm, gut or a carrying-thread with silver wire) deeply beneath the angle of the laceration. The suture is tied, but not too tightly, and a second and third passed in the same way, the ends being left somewhat long. This will usually stop the bleeding. The same manœuvre is repeated on the opposite side if necessary. The after-treatment is the same as in an ordinary case of labor, no vaginal douches being given until the end of the puerperal week. Illustrative cases were cited, in which hæmorrhage was so profuse that the patients were in an alarming condition. Union was perfect, so that it would hardly have been supposed that the cervix had been torn.

Contra-indications to immediate trachelorrhaphy —1. Patient so much exhausted by the labor that

it is not desirable so keep her any longer under an anæsthetic; 2. Possibility of septic infection and necessity of free drainage; 3. Such extensive bruising of the parts that the wound would probably not heal. Under these circumstances tampon firmly with gauze and apply pressure over the fundus uteri—the gauze to be removed in twelve to twenty-four hours. Give daily antiseptic douches after the second or third day, under the use of which even extensive tears may heal partially, so that a subsequent operation is not required, and parametritis is prevented.

## ELECTRICITY IN NEURALGIA.

To apply electricity for the relief of disease requires a more extensive knowledge of this therapeutic agent than is possessed by the average medical man, and in consequence of this defect in medical education, and also of the time and plant necessary for the proper use of electricity, it is left almost entirely in the hands of two classes of practitioners, the specialist and the charlatan. And yet the pointings of nature for relief from pain by it are often so clear, that it is a pity so few doctors avail themselves of this cleanly, cheap and agreeable means of relieving suffering, one of the most important of the physician's duties.

Idiopathic neuralgia is a *bête noir* to every practising physician. It is so intangible, evades so dexterously in many cases all attempts at finding a satisfactory etiology, is so much in the region of the unknown as regards pathology, and is so distressing to the patient, that no wonder the doctor would rather treat a case of psoriasis than one of so-called idiopathic neuralgia

Now, though we do not know the *rationale* of electricity, still it is unquestionably often attended with great success in the treatment of neuralgia. And our employment of this remedy empirically, is not a whit more reprehensible than our employment of opium to relieve pain, or of iodide of potassium to lessen the lesions, central or peripheral, of syphilis, for in neither case do we know how the desired result is brought about. To relegate electricity, then, to charlatans, is only an evidence that the profession generally do not know as much as they ought to know of the every-day means of application of that remedy, or will not take the time and trouble to use it.

It may be said that, to know all that may be known of the therapeutic uses of electricity, requires a very long and rather expensive training. This is true, but enough may be accomplished by any ordinary doctor, and with not too expensive apparatus, to lift the subject above its present level.

Not only will success follow, in the great majority of cases, the proper application of electricity in neuralgia, not dependent on serious organic lesions, but even the distressing pains dependent upon central structural changes are often greatly lessened.

The "proper application" is the point. It is not to be expected that every physician can be a skilled electrician, but in neuralgia, the question can be so limited as to allow electricity to be used by everyone. Speaking broadly, the neuralgias that one encounters in every-day work fall into two classes. First, those which are relieved by firm pressure over the painful area, and aggravation by superficial or light pressure. These are not true neuralgias, but are more properly spoken of as hysterical hyperæsthesias or pseudo-neuralgias. They are extremely annoying to the patient, and may be treated constitutionally with but little success, while the employment of the faradic current seldom fails to give relief. It is greatly superior to the galvanic current in these cases.

In the true neuralgias, those which are aggravated by pressure, which show the *points douloureux*, hyperæsthesia of the skin and deeper parts both when the attack is present and in the intervals of pain, and the well-defined painful course of the affected nerve and its branches in contradistinction to the *painful areas* of pseudo-neuralgia, the galvanic current is undoubtedly far superior to the faradic. A very little experience with a combined battery, these facts being known, will convince anyone of the great importance of both currents in properly selected cases.

Certainly, they do not cure the disease; that must be left for other agents to accomplish in a greater or less period of time; but the gratitude for the relief of pain brought about will abundantly repay the practitioner for all the trouble and time necessary to the proper application of the agent. In a word. then, when deep pressure

aggravates the pain, use the galvanic current, and when it relieves, use the faradic, a simple rule that is just as scientific when put into practice, as is the use of bromide or arsenic in functional nervous diseases.

---

THE INTRA-VENOUS INJECTION OF SALINE FLUID.—There can be little doubt, *Ed. Lancet*, that the injection of salt solution into the veins constitutes a valuable addition to our therapeutic measures in certain otherwise hopeless cases. We refer more especially to cases of severe accidental or unavoidable hæmorrhage, to severe cases of post-partum hæmorrhage, as well as to cases of extra-uterine pregnancy where there has been rupture of the sac with profuse intraperitoneal hæmorrhage. It would seem that the injection is also indicated in some cases of severe operation where a large quantity of blood has been lost but less than is needed to prove immediately fatal. In a certain proportion of such cases, although the patient is not pulseless at the end of the operation, death occurs before many hours have elapsed, apparently from secondary syncope. In some cases of the kind, at all events, it appears probable that the injection of salt solution may avert an unfavorable termination. It is certainly a great step in advance to have it established that the injection of actual blood is unnecessary; for so long as blood was required the practical difficulties surrounding the procedure were so great that it has but rarely been employed; and it is in the light of our present knowledge as certain as anything can well be that lives have been lost solely for the want of some ready means of restoring the volume of the circulating fluid. It is evidently of great importance that the method should be a simple one, and especially that it should not involve the possession of some more or less complex apparatus which the ordinary practitioner could not be expected to have at hand. As regards the fluid to be used, the simplest of all—plain water—will do, since successful cases are reported in which water only has been injected; but it is certainly preferable to use a solution of common salt, the proper strength being one teaspoonful of the latter to a pint of water. Here again, while it is no doubt desirable, if circumstances permit, that the solution should be sterilized, it is abundantly clear that it is by no means absolutely essential. A patient should not be allowed to die from loss of blood, where it is practically certain if let alone she would do so, merely on account of an extremely remote risk of septic poisoning from the water in the kitchen kettle and the salt in the table salt-cellar. Then as to the quantity of fluid to be injected. This should depend on the amount of blood that has been lost, and this often cannot be accurately estimated. It is important to note, however, that a few ounces are of little or no use. In cases really requiring this treatment it is a question of injecting pints. From a minimum of two pints in the less severe cases to a maximum of six pints in the worst cases is the amount of salt solution to be used. This should be continued till the pulse can be felt at the wrist. Opinions differ as to the rate at which the fluid should be injected; some consider that a pint in four minutes is not too fast, while others think that the rate of injection should be a third of this or less. Probably the actual state of depletion of the circulation causes the rate at which the injection may be safely made to vary in different cases. The actual apparatus required consists only of a cannula and a few feet of india-rubber tubing connected with a vessel to hold the salt solution. The form of the vessel is immaterial; indeed, the tubing converted into a syphon, may be made to convey the fluid from an ordinary jug. Now that the whole precedure has been so much simplified we may expect to hear of it being more frequently resorted in the coming year. Certainly no patient should be allowed to die from hæmorrhage without an attempt being made to save her by means of the intra-venous injection of salt solution.

SOLAR ELECTROTHERAPY.—In a dark room with alternating currents of 800,000 voltage, Nicola Tesla, by means of atmospheric vibrations, caused a faint glow of light to appear. Explaining the phenomena, he said: "If I can increase the atmospheric vibrations, say 1,000,000 to 10,000,000, I can produce sunlight in this room. Of course, I can increase the vibrations by increasing the voltage. I can make the voltage 8,000,000 as easily as 800,000, but I am not ready to handle 8,000,000 volts of electricity. Currents of such strength would kill everybody in the room. I expect, however, to learn how to control large

voltage. When I have increased the atmospheric vibrations perhaps a thousand times, the phenomena will no longer be electricity. It will be light. I am satisfied that sunlight can be made from electricity without doing harm to anybody, and I expect to discover how it is done."

This experiment and others which we, *Ed. Alienist and Neurologist*, have seen Tesla perform give us an electrical explanation of the value of the sun's rays in neurotherapy. We now have the explanation of the value of the solariums attached to our sanitariums, and of the influence of the sunlight in general on animal and plant life and health. We are reaching a point in the science of electricity and light when it is apparent that other purposes will be assigned to the sun than merely to illumine the earth and to the moon, than merely send forth the sun's paler reflected rays for a light by night. The sun is the great dynamo of our earth which the Master Physician of the Universe employs to promote and maintain the sanitation of the earth's population, animal and vegetable. So it now appears, as Tesla has electrified the scientific world with his electrical glow light, so the sun electrifies us. If light may be correlated into nervous force and nervous force into light, as Brown Séquard conjectures, we are certainly on the verge of a great therapeutic discovery through the discoveries of Tesla and his followers. The volitional phosphorescence of certain animals and the light emitted sometimes from certain sick people are among Brown-Séquard proofs, and among Tesla's experiments he emitted from his person a halo like that which is said to have emanated from certain saints of old, only Tesla's halo was in the dark.

OLIVE OIL IN OBSTRUCTIVE JAUNDICE.—Oliver, *Lancet; Am. Jour. Med. Science*, reports two cases of simple obstructive jaundice successfully treated with olive oil. The first patient complained of sudden attacks of severe pain in the upper part of the abdomen, which of late had become more frequent and severe, and had occasionally been attended with vomiting and followed by jaundice. On account of increasing debility the writer finally prescribed olive oil, beginning with one tablespoonful in milk daily and gradually increasing the amount to six tablespoonfuls. With the exception of a slight attack of colic on the second or third day after the treatment with the oil was instituted, the patient had no further pain and no return of jaundice, and is now in better health than he has been for the last five years. Treatment was continued for several weeks after the disappearance of the symptoms, and in addition to the oil he was given two grains of calomel twice a week, and a few drops of extract of cascara sagrada every evening.

The second case, a woman aged 48, had been deeply jaundiced for ten months. The abdomen was retracted and the liver enlarged. She was very feeble and her mind was depressed. As all other remedies had proved futile she was given daily two tablespoonfuls of olive oil in warm milk. Within three weeks the jaundice disappeared, the stools became normal and there was a remarkable improvement in the general condition. The author is unable to give any explanation of the action of the oil in these cases.

TREATMENT OF EPILEPSY.—In the *Liverpool Medico-Chirurgical Journal; Lancet*, Dr. Alexander utters a word of warning against the indiscriminate use of bromides in the case of epilepsy, a warning which, we venture to say, is not unneeded. Nevertheless in the great majority of cases no other drug is so efficacious, and it is only in rare cases that it is completely contra-indicated. Dr. Alexander has observed good results from the combination of borax with the bromides, especially with bromide of sodium. In twenty-six cases in which this combination was administered the fits were arrested for several months in nine cases; in seventeen they were diminished in frequency, while in one the attacks were uninfluenced, and in another they became more frequent. But perhaps the benefits of this treatment are more uniform in regard to the mental condition of the patients. Even in those who were subject to post-epileptic mental disturbance, and in others who remained dull and stupid for several days after a fit, the mental disturbances entirely disappeared. There are, however, certain drawbacks to the administration. The full dose sometimes produces gastric troubles, flatulence, and loss of appetite. But this inconvenience is usually got rid of by care in administering the drug after food, and by caution in increasing the dose gradually. Skin eruptions may also be produced,

especially after continuous administration for some time. These may be accompanied by intolerable itching, but the eruptions are said to subside usually even without discontinuing the use of the drug. Loss of hair, which may be complete, is a much more serious inconvenience. Dr. Alexander's experience seems to confirm that of previous observers in regard to the efficacy of borax in certain cases of epilepsy.

Infection.—The period of infectiousness of contagious diseases, according to the State Health Board of Pennsylvania, *Maryland Med. Jour.*, is:

Small-pox—Six weeks from the commencement of the disease, if every scab has fallen off.

Chicken-pox—Three weeks from the commencement of the disease, if every scab has fallen off.

Scarlet Fever—Six weeks from the commencement of the disease, if the peeling has ceased and there is no sore nose.

Diphtheria—Six weeks from the commencement of the disease, if sore throat and other signs of the disease have disappeared.

Measles—Three weeks from the commencement of the disease, if all rash and the cough has ceased.

Mumps—Three weeks from the commencement of the disease, if all swelling has subsided.

Typhus—Four weeks from the commencement of the disease, if strength is re-established.

Typhoid—Six weeks from the commencement of the disease, if strength is re-established.

Whooping Cough—Six weeks from the commencement of the disease, if all cough has ceased.

Under judicious treatment, the period of infectiousness may be considerably shortened, but no child suffering as above should be admitted to any school after a shorter period of absence, and then should be provided with a medical certificate that he or she is not liable to communicate the disease.

Length of quarantine—Teachers or children who have been exposed to infection from any of the following diseases may safely be re-admitted to the school, if they remain in good health (and have taken proper means for disinfection) after the following periods of quarantine:

Diphtheria, 12 days; scarlet fever, 14 days; small-pox, 18 days; measles, 18 days; chicken-pox, 18 days; mumps, 24 days; whooping cough, 21 days.

Adults may be re-admitted immediately, if they disinfect their clothes and persons.

Flies and the Diffusion of Pathogenic Bacteria.—Dr. Simmonds' investigations, *Br. Med. Jour.*, on the transportation of cholera bacilli by flies are of interest, in that they give in the form of a definite experimental observation what has long been almost common knowledge. It is well known that flies that have access to tuberculous sputum take the tubercle bacilli into their intestines. If they are examined histologically some time after, these bacilli may be demonstrated with the utmost readiness by the ordinary methods. It is probable, indeed almost proved, that other disease germs, such as the bacillus anthracis, are carried from point to point by flies, and now this has been specifically proved in the case of the cholera vibrio. Dr. Simmonds placed a number of flies which had from time to time settled on the viscera, etc., of a cholera case on which he was performing a *post-mortem* examination in a flask large enough to allow of their free movement. As soon as they had been moving about long enough to ensure their having got rid of most extraneous particles (about three-quarters of an hour), they were placed in a tube containing a suitable nutrient gelatine, from which plate cultures were found. In a couple of days these plates were covered with colonies of the cholera bacillus, and the proof was complete. The inferences to be drawn are obvious. The humble fly-paper vendor is a far more useful and important personage than has yet been acknowledged.

Further Experimental Researches on Immunity.—The experiments and results refer to tetanus only, *Lancet*. In testing the duration of the immunity afforded by serum from various sources, it was found that in rabbits treated with horse-serum the immunity was lost in sixteen days, and that there was rather strong local reaction. In rabbits treated with dog-serum the immunity vanished in fifteen days, and again there was considerable local reaction. In rabbits treated with rabbit-serum there was but slight local reaction, and the immunity was prolonged to twenty-one days. In the experiments, the various kinds of serum injected were of the same immunizing power, or were carefully made so by using proportional doses. From these results, the obvious conclusions have been drawn that the duration of the immunity which any serum will afford is

different in serums of different origin, and that in general an animal obtains the longest immunity if injected with serum from an animal of the same natural order. A further series of experiments went to show that the dose of serum necessary to save an animal which had been infected twenty-four hours previously with the minimum fatal dose is from 1,000 to 2,000 times greater than the dose of serum which will protect an animal when administered twenty-four hours before injection of the poison. It was also found that within definite limits an increase in the dose of the serum had the effect of shortening the duration of the treatment.

Calcium Chloride as a Hemostatic—Saundby, *Birmingham Med. Rev.*, employed this remedy in several forms of hæmorrhages with distinct success. The first case was a middle-aged woman, with chronic jaundice of six months' duration, believed to be due to an impacted gall-stone. She suffered from free enterorrhagia, apparently the result of internal piles. After rectal injections of olive oil and the use of saline aperients had failed to check the bleeding, calcium chloride in small doses was administered every four hours with the satisfactory result that after five days the hæmorrhage ceased, and did not return.

The second case was an elderly woman, suffering from purpura hæmorrhagica, with free bleeding from the gums and slight hæmaturia. Ergot and gallic acid were of no use, and on the third day after admission, she was given small doses of calcium chloride every two hours. The bleeding ceased within five days, and the patient made a good recovery.

The third case was one of phthisical hæmoptysis in which calcium chloride was used with other measures, but in spite of all treatment a profuse hæmorrhage followed, which proved fatal. The autopsy revealed aneurism of the pulmonary artery, projecting into a cavity.

In these cases the dose of the drug never exceeded six grains, though in the case of purpura this quantity was given every two hours during the day for some days. Wright found that large doses—fifteen grains thrice daily for several days, caused a marked diminution in the coagulability of the blood.

Electricity in Uterine Fibroids.—Knowlsey Thornton says, *Br. Med. Jour.* : I have never yet been satisfied that any case of uterine fibroid has been cured by electricity. That it does in some cases check hæmorrhage by its local action on the diseased mucous membrane I fully believe, but so do many less troublesome applications, and so will one curetting, if more severe measures be necessary. That it does in some few cause the tumor to shrink for a time, I also admit, but unfortunately they very often only rest and then start off and grow again, and sometimes faster than before. It is within my personal knowledge that, in the hands of the most skilled operators, mischances do occur, and also that, instead of reducing the tumors, it does occasionally induce great rapidity of growth and pain and discomfort which were never there before. I have operated on several cases after it has failed to relieve them or made them distinctly worse, and this not precipitately, but after long and patient waiting for the benefits that were not apparent at first, but were to be so in three months, or in six months, or so on, after the actual treatment had ceased. I am ready to admit a little prejudice, but it is only the offspring of a conscientious endeavor by a study of the published cases to arrive at the truth. Show me the cures and I will believe. They ought by this time to be so many that the most skeptical could not fail to become a believer.

The Gould Method of Ablation of Penis.—The scrotum is split, and the incision continued down to the centre of the perineum, *Ill. Med. Age.* The penis is then seized and freed down to the attachments of the corpora cavernosa and to the rami of the pubes ; these are divided. The corpus spongiosum is next separated from the corpora cavernosa about an inch from the triangular ligament. The penis is removed, and the corpus spongiosum split and attached to the skin wound behind the scrotum. The long incision through the scrotum is sewn up. The groins are next attacked, and all enlarged glands thoroughly cleared out, the femoral vessels being exposed in the dissection.

Mr. Herbert Allingham is confident this is the best operation to perform, as it clears away all the dorsal lymphatics, and in cancerous affections it is most important to cut free and wide of the morbid growth.

Should there be any recurrence in the groin, Mr. Allingham would ligature the femoral artery and vein, and then thoroughly clear away the whole of Scarpa's triangle, and if necessary turn up the peritoneum and clear away the external iliac glands.

Relations between Chorea and Epilepsy.—Dr. Trowbridge, *Alienist and Neurologist; Med. Times*, says there is an intimate relation between epilepsy and chorea, both diseases being due to disturbances of the motor and intellectual centres of the brain, which differ only in the degree of intensity. Chorea predisposes towards epilepsy, and epilepsy toward chorea—the former being the most frequent condition. Chorea in one generation may be transmitted as epilepsy in the next or succeeding generations; or the epilepsy may appear first, and the chorea in the following generations. A neurotic taint in the parent or parents may make one child choreic and another epileptic. The diseases may exist simultaneously, but in these cases they are in inverse ratio, *i. e.*, the more violent the chorea, the less frequent and severe the epileptic convulsions, and *vice versa*, the more violent the epilepsy, the less marked are the choreic movements. In cases of chorea and epilepsy there is more or less mental impairment.

Reclus, *Gaz. de Hôpitaux; Am. Jour. Med. Science*, speaks of the use of hot water for the relief of painful hæmorrhoidal tumors. Tampons, wet with a 2 per cent. cocaine solution, should be kept in contact with the anus. In order to give a more certain relief, the anus should be dilated with a bivalve speculum, with or without anæsthesia. A tampon wet with a 2 per cent. cocaine solution is inserted in the ampulli recti for two or three minutes. An injection of a 1 per cent. solution of cocaine is made directly into the substance of the sphincter muscle. The speculum is then introduced and maximum dilatation made.

Reclus has treated sixty cases after this method, with only one failure. The relief was absolute, and the condition did not return. The author has never seen any disagreeable or dangerous symptoms result from this treatment. If it is thought likely that there will be a return of the trouble, the pile tumors should be cut off with cocaine anæsthesia.

Glycerine in Gravel.—Dr. Heymann, *Revista de Ciencias Medicus de Barcelona; Med. and Surg. Rep.*, has employed glycerine in renal lithiasis, on account of its property of dissolving uric acid and also passing unaltered through the kidneys. He records fourteen cases treated by this method. He summarizes his impressions as follows:

The first effect of its ingestion is to increase the thirst. In those suffering from stone in the kidneys, pains appeared in this region, it being limited to the one side affected. The quantity of urine was increased, and, after a varying time of nine to twenty-four hours, small calculi were expelled. In ten out of these fourteen cases he obtained favorable results. The pains were not as severe as those of renal colic while the urine, after its injection contained neither albumen, sugar nor hemoglobin. Even after three to four hours the presence of glycerine could be discovered in the urine, in appreciable quantities. A large quantity of mucus was also noticed. Based upon these results he regards glycerine as the most efficient means of treating renal lithiasis.

Chronic Glycosuria.—Sir Dyce Duckworth, *Br. Med. Jour.*, speaks of that class of cases which presents saccharine urine without any of the typical symptoms of diabetes. He believes in a modified diet, not a complete exclusion of starches and sugars. The moderate use of alcoholic drinks is permitted, Bordeaux and Moselle being preferable, though diluted whisky may be used. He does not consider it advisable to use opium in any form. He believes alkalies given in effervescence to be much preferable. Strychnine and arsenic he considers of the greatest value. While arsenic is not a curative agent, it is of inestimable value in all cases. The more regular and equable the life led the less are the inroads made by diabetes.

Relation of Aneurysm to Syphilis.—For many years, Dr. D. Drummond, *Br. Med. Jour.*, has been deeply interested in the connection between syphilis and aneurysm. Since commencing the investigation, no indisputable case has come under his notice in which specific disease was wanting, excepting two or three examples of acute softening of the arterial wall, with aneurys-

mal bulging, in malignant endocarditis. Arterial strain through hard work is, of course, a factor in the production of aneurysm, but it is one that in the vast majority of instances requires to be multiplied by specific arteritis, and then it is the lesser quantity of the two.

JAKOWSKI, *Zeitschr. f. Klin. Med.; Coll. and Clin. Rec.*, after bacteriological study of fifty-two cases of pleuritis, concludes that every pleuritis is of bacteriological origin, although the bacteria may not be found in the exudation. When repeated examination of a serous or purulent exudation shows no bacteria, the case may be considered as tubercular. The majority of primary, non-tubercular pleurisies are due to the diplococcus of Fränkel. The next most frequent cause is the streptococcus pyogenes. Serous effusions containing these latter are much more likely to become purulent than those which contain only the diplococcus. The most favorable prognosis is to be given in cases which contain only the Fränkel diplococcus.

CHAS. DAY, M.D., 70 St. Mark's Square, London, says: I have prescribed your preparation, Iodia, with very satisfactory results. Its power of arresting discharges was very manifest in a case of leucorrhœa, and another of otorrhœa. In the latter case, the result of scarlet fever in early life, the discharge had existed for many years. The patient could distinctly feel the action of the Iodia on the part, and the discharge gradually dried up.

DR. CHAS. NEDSKOV, Sorrento, Fla., says: Papine alone and in combination has been quite satisfactory. A case just dismissed may serve as illustration. The patient, a married lady, I found suffering severely from ovarian congestion and neuralgia. After preliminary treatment I ordered Papine, teaspoonful doses, half-hourly administered. Pain relieved after third dose, and next day she felt, to use her own words, "a thousand times better." Combined with Bromidia, a very noted improvement was effected in a case of "nervous prostration" and inveterate chronic insomnia. Papine's chief recommendation appears to be its uniform reliability, coupled with comparative freedom from deleterious after-effects.

## Books and Pamphlets.

SURGERY. By Bern B. Gallaudet, M.D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York; Visiting Surgeon Bellevue Hospital, New York; and Charles N. Dixon-Jones, M.D., Assistant Surgeon Out-Patient Department Presbyterian Hospital, New York. Being the final volume of the Students' Quiz Series, edited by Bern B. Gallaudet, M.D. Duodecimo, 291 pages, 149 illustrations. Cloth, $1.75. Philadelphia: Lea Bros. & Co. 1893.

This little work of 301 pages, though coming as one of the Quiz Series, is really not a compend or summary, but an *explanation* of the principles and practice of surgery in a very concise form. It has 150 engravings.

SYLLABUS OF LECTURES ON THE PRACTICE OF SURGERY; arranged in conformity with the American Text Book of Surgery. By N. Senn, M.D., Ph.D., LL.D., Chicago. Philadelphia: W. B. Sanders. Toronto: Carveth & Co. 1894.

This little book should be invaluable to the student, giving him a more complete classification of surgical points than he can hope to make for himself, or to obtain from any course of lectures at any college. It will give him the essential points, something upon which he can rely at examination time, either in the hall or at the bedside. To the practitioner it will supply a ready grasp of a whole subject, when he is two pressed for time to read in the ordinary text book.

OUTLINES OF OBSTETRICS; a syllabus of lectures delivered at the Long Island College Hospital. By Charles Jewett, A.M., M.D., Professor of Obstetrics and Pediatrics in the College, and Obstetrician to the Hospital. Philadelphia: W. B. Saunders. Toronto: Carveth & Co. Pp. 264; $2. 1894.

The object of this little work "to help the student in securing a classified knowledge of the outlines of his subject," is well carried out. It will be found useful as a handy book of reference for facts, anatomical and otherwise.

HISTOLOGY, PATHOLOGY AND BACTERIOLOGY; a Manual for Students and Practitioners. By Bennett S. Beach, M.D., Lecturer on Histology Pathology and Bacteriology, New York Polyclinic. Series edited by Bern B. Gallaudet, M.D. Philadelphia: Lea Brothers & Co., Toronto: Carveth & Co.

A useful compendium, on the works of Delafield, Prudden, Schafer, Klein, Zeigler and Frankel. Handy for reference.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

### EPITHELIOMA OF THE PHARYNGO-ORAL CAVITY, INVADING THE LARYNX.

BY CONSTANTINE O'GORMAN, M.D., ETC., TRINITY, COBOURG, ONT.

In April, 1893, the patient, an hotel-keeper, came as an ordinary office case. Scotch by birth, stoutly built, æt. 65 years, of a decidedly bilious temperament; pale, jaundiced complexion, with marked anæmia. The tongue was pale, flabby, furred, broad, indented; conjunctivæ yellow. Symptoms of disturbed and inefficient nutrition were plain. Diagnosis: hepatic derangement, with probably catarrhal state of the stomach.

Habits of life: For the previous 40 years a free liver, constant smoker of cigars, never inebriate, but always taking his diurnal quantum of stimulant.

Putting him upon ordinary treatment, *e. g.*, pil. colocynth co., ammon. mur., with acid nitro hydrochlor. dil., and gentian, the patient improved fairly; the complexion cleared, the conjunctiva lost its jaundiced hue, more buoyancy of manner was manifest, and a general feeling of "being much better" was the result.

About a month afterwards, I was again consulted concerning pain in the left ear, not constant, but chiefly when deglutition was performed. Examination by gaslight and speculum revealed nothing abnormal, though audition was obtunded. Inflation by means of a Politzer bag was tried for a time, with very negative results. Direct inspection of the oral cavity revealed nothing. Some days later, it was observable that the patient's voice would change for a while, and then resume its normal tone. It was not exactly hoarse, nor yet the *vox rauca*; but a frequent "hemming" and clearing of the throat was noticed during conversation, which more notably developed as the case advanced; together with the expectoration of white, frothy sputa, without any recognizable fetor. These symptoms led to an examination by forehead and laryngeal mirror, after first spraying the throat with a cocaine solution to render manipulation more easy. Then an area, irregular in outline, small in extent, congested, darkened and injected was found posteriorly, in the oro-pharyngeal region. This was certainly suspicion on the eve of being confirmed, not by the bishop, but the specialist.

Bearing in mind a case, some years ago, of syphilis in this region, which being tertiary or ulcerative, ran a rapidly fatal course, I inquired carefully into the patient's history, but elicited no information which would point to a bygone initial lesion; giving him the benefit of the doubt, he was placed upon potass. iodid., Donovan's solution and bitter tonics, without any positive results, excepting, perhaps, faintly retarding rapid infiltration of surrounding tissues. Vaporized medication by means of Coulter's inhaler was also used, affording some amelioration of active, local symptoms; though these increased as the weeks went on, showing a slowly-growing area of erosion, with slight tumefaction.

The advisability of consulting some specialist was mooted, and Dr. Burnham, of Toronto, was agreed upon, who confirmed all suspicions, and after the second examination—a week later—suggested an independent opinion. Dr. Spilsbury of the same city, was referred to, and, as we expected, unhesitatingly confirming the diagnosis of pharyngo-laryngeal cancer, pronouncing the case as beyond interference, likely to lead to a rapid crisis, involving the operation of tracheotomy, or sudden hæmorrhage from erosion; though at the same time counselling general treatment, local, tonic and alterative. The patient was then informed that he was hopelessly incurable, but that relief might be obtained by continued treatment.

Stoically resigning himself to the inevitable, he day by day gradually but surely emaciated, until a loss of 63 lbs. was sustained from a previous weight of about 180 lbs. Complete alteration in the timbre of the voice ensued, amounting to times to aphonia. Dysphagia and regurgitation of, even liquids, was now of constant occurrence; though with strong will and effort, he forced himself to swallow, the liquid sometimes appearing

through the nasal cavities. During September and October, he led the life of a chronic invalid, giving up business, but taking drives or walks in fine weather. The inhalations, as he said, "gave him something to do," tr. benzoin co. being mainly used. The nightly application of the cocaine spray, 4%, with glycerine and boric acid, cleansed and anæsthetized the parts, as also bland gargles of rose-water and pot. chlor. The tumefaction, especially towards the left lateral cervical region, now increased, and was easily felt by digitation. The constriction of a collar caused distress, so with a view, if possible, of modifying or retard, ing the swelling, ungt. plumbi iodi was applied nightly, with apparent relief. As November advanced, the patient was confined to the house; the breathing became distressed, the sputa darker in color and more offensive in odor. The heart's action became intermittent, vertigo was frequent, anxietas was apparent—dyscrasia had set its seal upon him. It was patent to all that the end was near. Being hurriedly summoned upon the night of November 30th, with thoughts of various complications having ensued, I hurriedly obeyed, and found that about 8 p.m. the hydra-headed la grippe had embraced him, as evidenced by intense rigors, violent pains over the region of the kidneys, a rapid pulse, intense dyspnœa, with heavy accumulation of mucus throughout the bronchial tubes. At 11 p.m., the lungs drowned in their own secretions,

> "He died, exactly as a child would die,
> With scarce a groan or a convulsive breath;
> Closing, without a pang, each quiet eye,
> Gliding composedly from sleep to death."

Conscious to the last, death being by apnœa.

Securing permission to make an autopsy, I next morning extirpated from the root of the tongue, the pharynx and œsophagus to the middle third, with the larynx and upper third of the trachea. Upon opening the specimen, in mass posteriorly, I found the whole interior bathed in thick, ashen-gray, fœtid pus—having a roughened, villous surface—a truly cancerous mass. The epiglottis was indurated at its base, and closed imperfectly. Had the case lasted longer, the tumefaction, before spoken of, would eventually have ulcerated into the region of the left internal carotid, or some of its branches, with the obvious result of sudden and uncontrollable hæmorrhage. The liver was normal in size and appearance, a state of things not expected. The heart, slightly fatty. The gall-bladder was enlarged. The kidneys abnormally large, infiltrated with blood, denoting a sudden *suppressio urinæ*, which would account for the great pain in the lumbar region the night before.

I am indebted to Mr. G. H. Field, a fourth-year student, and to Dr. Anderson, pathologist at Trinity, for the very beautifully stained and mounted specimens, which demonstrate an epithelioma. The cells are squamous, arrayed in nests with a large amount of intervening connective tissue. The gross specimen can be seen in the museum of Trinity Medical College. Before closing, I would like to make a few points of personal observation, differentiating between syphilis and cancer of the throat in general; though of course these are fully treated of by McKenzie, Sajous, and, more recently, by Morrow. Let me crave space, as I still proceed. In the syphilitic case I found early and intense fetor of the breath—not that due to mercurialism, but an odor which may be termed necrotic and peculiar to itself. Also placques, invading the intra-oral mucous membrane; early softening and rapid ulceration in the oro-nasal space; enlargement of the cervical glands, and, in the case referred to (tertiary), nodes in the long bones, and exostosis of the ramus of the jaw; involvement of the cerebrum, as verified by the facial paralysis of Bell; ptosis, apathy and mental hebetude.

In the cancer case: Fetor of breath, not well marked at first, but white frothy mucus, early seen (confirmed by McKenzie). Later on, rusty-colored, frothy sputa; marked voice-change, at times ægophonic; increased fetor; gradual onset of cachexia; general progressive emaciation; no marked hebetude; faculties remaining clear to the last. This would indicate that cancer does not, in the same manner, invade the nervous system, as the virus of syphilis is so prone to do; it being conceded that cancer is a malignant proliferation or overgrowth of perverted cell-tissue, in any part of the body; its origin unknown, but manifesting itself locally, and leading in time to vitiation of the blood-current (dyscrasia), rapidly going on to a destructively fatal issue in that part or organ of the body on which, from some cause, it first encroached and manifested predeliction, especially when heredity is a factor.

Syphilis, on the other hand, being a specific virus, is a blood-poisoner and disorganizer, *ab initio*, manifested by an initial sore, sometimes unnoticeable, in any part where mucous membrane exists, or abrasion of the cuticle occurs; amenable to treatment, and happily cured in its primary manifestations, and to material amelioration even in its advanced stages, provided that extensive gummata have not developed within the cranium. A disease which will, in the course of years, exhaust itself in an exceptionally vigorous subject, of good heredity and family history; but, as it were, burn itself out, leaving its victim maimed and disfigured by the wayside of life—a sufferer, if not from facial deformity, yet, knowing that the "iron has entered into his soul"—a veritable "thorn in the side," in the shape of visceral disorganizations, with a residuum of healthy tissue. These are but limited observations, crudely collated. To enter more fully upon this subject would indeed be enticing: for the more extended literature, culled from vast fields of experience and learning, I would refer the reader to Morrow, vol. ii., pp. 331-364; Sajous, pp. 270-349; McKenzie, pp. 244-261.

## THE PRESENT STATUS OF INTUBATION IN THE TREATMENT OF CROUP.

BY J. O'DWYER, M.D., NEW YORK.

Most difficult would be the task of the impartial reader who would attempt to arrive at any definite conclusion regarding the value of intubation from the most careful study of the literature of this subject, unaided by personal experience. So conflicting are the opinions that have been expressed by the numerous writers on this subject, that the partisan, choosing whichever side his fancy or prejudice might dictate, could produce an array of authorities and statistics in support of his arguments, either *pro* or *con*, that to the inexperienced would appear overwhelming. Jumping at conclusions from a limited experience, the one thing above all others that the practice of medicine should teach us to avoid is the principal cause that has led to the confusion and difference of opinion that still exist on this question. The more fatal a disease, the more caution is necessary in making deductions from the evidence derived from a few cases, because, under these circumstances, the element of chance or coincidence often plays an important part which is excluded when large numbers are considered. For example, I recently intubated a patient for a physician in my neighborhood, who informed me that it was his eighth case of this kind, and that seven of them had recovered. For another physician, only a few blocks distant, I had intubated a similar number of cases, every one of which died. At the Great Ormond Street Hospital, London, in the year 1890, intubation was first tried in eleven cases of croup with only one recovery. This result was considered sufficiently unfavorable to condemn the operation, and it was therefore abandoned. At the end of two years, owing probably to more favorable reports from other quarters, it was again tried in another series of eleven cases, this time with eight recoveries, (*British Medical Journal*, July 22, 1893. Whether only one case or eight cases out of eleven recover proves absolutely nothing except that some cases do recover after intubation. Neither would it have proved anything had every one of the twenty-two cases died, except that the mortality following intubation for croup was very large—a fact which no one with sufficient experience disputes. The literature of intubation abounds with similar examples of reaching conclusions from a limited experience, and it is on such evidence that this procedure has been over-estimated by some and condemned as useless by others, according to the varying results obtained in a few cases.

The fatal and complex nature of croup, which renders such contradictory results possible under the same method of treatment, is also to some extent responsible for this condition of things.

Acute non-traumatic stenosis of the larynx in children that endangers life by suffocation is, with rare exceptions, diphtheria, either true or false. This disease, if unrelieved by mechanical means, proves fatal in about ninety per cent of the cases, and, with all the aid that medicine and surgery can afford, it still continues to be, with few exceptions, the most fatal of all the acute diseases. The much-dreaded Asiatic cholera seldom carries off more than half its victims, while croup claims a much larger percentage. Even some epidemics of cerebro-spinal meningitis are more merciful than this disease, the terrors of which are less apparent because always present.

In considering the causes that lead to such frightful mortality and the unsatisfactory results obtained from any method of treatment yet devised, the important fact is often lost sight of that the word croup means a good deal more than obstruction in the larynx. Did it only mean the latter, there would be no room for any difference of opinion as to the best method of treating it, because under those circumstances intubation in skillful hands would have no failures.

Those familiar with the pathology of this disease know that the most frequent cause of death, after the laryngeal stenosis has been overcome by means of intubation or tracheotomy, is the extension of the disease to the bronchial tubes, where surgery can not reach it; and that there are several other causes, such as pneumonia, systemic poisoning, paralysis, especially of the heart, and nephritis, each of which contributes its quota toward swelling the mortality of this terrible disease. It goes without saying that the results of any method of treatment in a disease having so many complications, the fatality of which is so great under all circumstances, and which varies so widely in different epidemics, must be obtained from a large number of cases in order to be of any value. Not even are the results of intubation obtained from a large number of cases collected from numerous operators, each contributing a few, of much value, because the ability to intubate without immediate danger to life can not be acquired by the amount of practice derived from a few cases.

It is therefore to large individual experience alone that we must appeal for conclusive evidence as to the value of intubation, not only as a means of saving life, but also as to its more important function as a means of euthanasia in the most excruciating of all forms of human suffering—that of slow strangulation.

There are at present a sufficient number of operators, both in this country and Europe, who possess this kind of experience, and they speak on this subject with no uncertain voice. Among the American intubationists who have had large individual experience and whose opinions on this question are well known, I may mention Waxham, formerly of Chicago, now of Denver; Brown, Northrup, Huber, Caillé, Lester, Stanton, and the author, of New York; McNaughton, of Brooklyn, Hailes, of Albany; Eichberg, of Cincinnati; Richardson and Henrotin, of Chicago; Shimwell and Montgomery, of Philadelphia; Cheatham and Pusey, of Louisville; von Glahn, of Cleveland; Pyne, of Yonkers; and Graham, of Toronto. All of these and many others whose names I have not at hand have had in the immediate neighborhood of or exceeding a hundred cases. Several of the operators mentioned can count their cases by hundreds, and four names could be selected whose aggregate number of cases now exceeds two thousand.

The latest intubation statistics are those by Dr. McNaughton and Dr. Maddern, of Brooklyn, who have collected from 242 operators in various parts of this country and Canada 5,546 cases, with 1,691 recoveries, or 30·5 per cent. (*Brooklyn Medical Journal*, August, 1893). Notwithstanding that it is only within the last three or four years that intubation has been adopted to any considerable extent in Europe, some valuable statistics have already been accumulated. And these statistics are valuable not only because they are the result of large individual experiences, but also from the fact that they have been obtained exclusively from children's hospitals in which tracheotomy had hitherto been the only surgical measure available in the treatment of croup.

Professor Ranke, of Munich, as the result of a collective investigation on the subject of intubation in Germany, reports 1,324 cases of primary laryngeal diphtheria intubated, with 516 recoveries, and 121 cases secondary to measles, scarlet fever, pneumonia, etc., with 27 recoveries—a total of 1,445 cases, with 553 recoveries, or thirty-eight per cent. (*Münchener medicinische Wochenschrift*, No. 44, 1893). Of this number, Ganghofner, of Prague, contributed 498 cases, with 213 recoveries, 42·7 per cent.; Ranke, of Munich, 368 cases, with 128 recoveries, 34·7 per cent.; von Muvalt, of Zurich, 106 cases and 38 recoveries, 35·8 per cent.; Jabenowski, of Cracow, 165 cases and 73 recoveries, 44·2 per cent.; and Unterholzner, of Vienna, 164 cases and 55 recoveries, 35·5 per cent.

Secondary tracheotomy was resorted to in 250 of the cases, with only 20 recoveries, or about seven per cent.

In regard to the value of these statistics Ranke speaks as follows: "This number proves for itself that O'Dwyer's intubation, which at first and until lately was severely fought on all sides, has in the

course of a few years gained more and more friends on this side of the Atlantic, and it proves that the dangers which were formerly charged against intubation must have been very greatly exaggerated."

And again, in giving the true explanation of the insignificant results obtained by means of secondary tracheotomy after intubation had failed, as follows: "The extraordinary small percentage of recoveries from these secondary tracheotomies is explained in this way: that in the majority of these cases secondary tracheotomy is resorted to after the diphtheritic process has extended to the bronchi, and that, under these circumstances, tracheotomy could not accomplish any more than intubation."

Similar testimony as to the value of this procedure comes from Hungary. Bokai, medical director of the Stefanie Children's Hospital of Budapest, has already intubated over 500 cases of croup, with recoveries of thirty-six per cent. In the medical report of the hospital for the year 1892, with an experience at that time of nearly 300 cases, Bokai, after referring to the necessity of having an additional diphtheria pavilion constructed, proceeds as follows: "That this construction was required was demonstrated by the fact that all the beds and extra rooms were continuously filled. The cause of this great attraction of our diphtheria division was due chiefly to the employment of intubation, and it gives us pleasure to be able to state that this procedure has given splendid results, so that tracheotomy has become almost wholly superfluous. In consequence of these splendid results, numerous friends have been added to the side of intubation, both in the country as well as in the city, and many colleagues have availed themselves of the rich material at our disposal to practise intubation under our direction. Convinced of the extraordinary importance of O'Dwyer's intubation in hospital as well as in private practice, I deemed it my duty to so instruct my colleagues, and it gives us pleasure to say that this acquision has spread from our hospital throughout all Hungary."

Such is the evidence regarding the present status of intubation in Europe furnished by men whose reputations are more than national, and whose experience with this procedure has been amply sufficient to entitle them to speak on this subject with the voice of authority. It will be noticed that the percentage of recoveries is considerably larger in Europe than is generally obtained in this country, and the same is also true of tracheotomy. The ready accessibility at all times of a skilled intubationist should give some better results in hospital than in private practice, which may in part explain the difference, as the statistics from the other side come exclusively from the hospitals, while in this country they are furnished, with few exceptions, from private practice. In 186 cases treated at the Willard Parker Hospital in New York, thirty-eight per cent. recovered, while at the Boston City Hospital 392 cases gave only twenty per cent.

In the former the resident physician and one trained assistant performed all the intubations, while in the latter they were done by successive house staffs, each member of which had charge of the diphtheria division in rotation. Under the latter circumstances the individual experience was necessarily small, so that no single operator could have had a sufficient amount of practice to enable him to avoid the accidents, not infrequently fatal, that are inseparable from intubation in the hands of the novice. That the different conditions which existed in these two hospitals explains the great discrepancy in the results I do not believe; but that they were sufficient to produce a very considerable difference in the percentage of recoveries there is not the slightest room for doubt.

In regard to the comparative merits of intubation and tracheotomy as life-saving measures in the treatment of croup, I do not know of any stronger argument that could be produced in favor of the new procedure than a short quotation from a paper by Dr. L. S. Pilcher, of Brooklyn, during a discussion on this subject before the King's County Medical Society (*Brooklyn Medical Journal*, August, 1893).

Dr. Pilcher, while advocating the claims of tracheotomy as the greater life-saving operation, makes the following very candid statement: "I believe that it has been my lot to be called upon to do tracheotomy for the relief of croup in a considerable proportion of the cases that have sought surgical relief, and yet during the seventeen years in which I have been operating I have been called upon to do the operation but 66 times, notwithstanding the deaths from croup in our city during

this period amounted to between 400 and 500 every year. On the other hand, during the past four years Dr. McNaughton has been called upon to intubate 142 times. He has been instrumental in saving 42 lives in four years, I but 22 in seventeen years, notwithstanding 33.33 per cent. of my cases recovered and but 29.5 of his." In other words, Dr. Pilcher was doing tracheotomy on an average of four times in a year, when the deaths from croup during the same period amounted to between 400 and 500.

Estimating from the deaths as given above, the total number of croup cases that occurred in Brooklyn during the seventeen years referred to was somewhere between 8,000 and 9,000, and out of this vast number the most celebrated tracheotomist of that city succeeded in saving the lives of only 22. This is a good example of the life-saving qualities of tracheotomy, an operation which the poorer classes, among whom croup principally prevails, seldom consent to, and if they did the skilled nursing so essential to the proper after-treatment would not be available. Intubation, on the contrary, is rarely objected to either by the rich or the poor, the ignorant or the intelligent, and no skilled nursing is required, the one and only requisite being trained operators. Outside of hospital practice there is, therefore, no room for comparison between these two procedures, the question as to whether, in a given number of cases, one operation may save a small percentage more or less than the other being one of scientific rather than of practical interest.

The difficulties and dangers of placing a tube in the larynx or removing it in the short space of time that is compatible with safety, are either great or small according to the practical experience of the operator. When this important fact shall have been more generally recognized, intubation will not be attempted by so many as heretofore, but will be left to those who have had some sort of preliminary training, if not on the cadaver, at least on a larynx, or on one of the smaller animals. By any of these means sufficient dexterity with the use of the instruments may be acquired to avoid at least some of the accidents inseparable from this operation in the hands of beginners.

## NEURASTHENIA.

BY PROF. G. RAUZIER, OF MONTPELLIER.

Translated from the French, by D. Campbell Meyers, M.D., Toronto.

*(Continued from March No.)*

Few diseases are, as far as symptoms are concerned, so richly provided as neurasthenia. This neurosis, as we said at the beginning, may affect any system or organs of the economy, simultaneously or separately, and will therefore exhibit the most varied symptoms. Hence it is indispensable that a choice of these symptoms should be made, to separate from this too intimate combination a certain number of signs rarely varying, forming a characteristic group. At the present time, the following are described: *(a)* Symptoms "of definition," or *stigmata*. *(b) Accessory symptoms*, or those of the second degree.

Mathieu includes in his classification a third category, that of the *objective symptoms* of neurasthenia; but the list of these symptoms is so limited (dynamometric test, characters of the sphygmographic tracing) and are on the other hand so void of conclusions, that we prefer to confine ourselves to the first two divisions.

*(a) Stigmata.* The principal manifestations of neurasthenia are *cephalalgia*, *vertigo*, *insomnia*, *cerebral depression*, *amyosthenia*, *rachialgia* and *gastro-intestinal troubles*.

1. *Neurasthenic headache* has been traced by Lafosse, who made it a special study, in 44 cases of neurasthenia, out of 45 cited by him. According to Bouveret, it is noticed in three-quarters of the cases. Levillain says it can be ascertained in four-fifths of the subjects attacked.

Sometimes a genuine pain exists, sometimes a simple heaviness or compression; the patients feel the sensation of a leaden cap, of a heavy and close-fitting helmet (Galeati). The greatest *centre* of of the pain varies widely; it occupies most frequently the frontal or occipital region, as if the bezel of an enormous ring pressed upon the forehead or the occiput. At other times, it is a horribly painful sensation of intra-cerebral void, or, again, the idea of water bubbling in the cranial cavity. The pain may be localized on one sibe of the skull; it is then the hemicrania of authors. Hyperæsthesia of the scalp is not uncommon.

The headache is especially diurnal; it begins on awakening and remains the whole day, ceasing momentarily after a meal; sometimes, on the contrary, it appears immediately after food is taken. It is aggravated by labor, emotions, and certain conditions peculiar to each individual. It is accompanied sometimes by visual troubles, murmurs, and humming in the ears, causing an uncertain and staggering gait.

2. *Vertigo*, in connection or not with gastric troubles, presents itself under two forms: in the light form there is a vague feeling of instability, easily removed by argument, and unaccompanied by any apparent difficulty of equilibrium; in the serious form, a veritable titubation is joined to the erroneous idea that the patient experiences regarding surrounding objects.

Often in the acute periods of the disease, it happens that the patients lose, for short periods, the consciousness of their personality, of the objective reality of their acts; in their wanderings, they do not feel the surface on which they are walking, and think they are floating above the pavement; they are unconscious of the movements they make, of which the realization appears to them to be due to an unfamiliar personality; even the sound of their own voices is not recognized. They go, come, converse, salute automatically, instinctively correct and apparently lucid. In reality the mind is vacant, the sight confused, the idea of their surroundings warped and undecided. Happily these phenomena are transitory, they are noticed from the commencement of the acute stage of over-pressure, and an occasional cause may be recognized even in the moderate use of toxics (tobacco, alcohol), to the effects of which the vertiginous neurasthenic is particularly susceptible.

3. *Insomnia* shows itself among neurasthenics under various forms; in many diseases, it is a striking phenomenon, the symptom to which your attention is first directed. Most frequently there is more or less difficulty in going to sleep. There results from this a state of painful agitation, aggravated by the ardent and restless pursuit of slumber, joined to the firm conviction that they may remain a long time awake; then heavy slumber supervenes, broken by nightmare and restlessness. At other times, on the contrary, sleep comes at once, but is of short duration, and is very soon succeeded by an anxious wakefulness. The symptoms of *cerebral depression* play nearly always the chief *rôle* in neurasthenia. They impress on the physiognomy and gait the peculiar seal which often discloses at first sight the nature of the illness. The facial expression is sad and preoccupied, anxious; the cerebral faculties are dulled; memory, especially of proper names, is defective; the attention cannot be concentrated more than a few minutes without fatigue. But of all the operations of the mind volition suffers most. The neurasthenic cannot wish; his will, dormant as if struck by catalepsy, has yielded to a persistent aboulia, to an invincible disgust at all things, which makes the execution of any act whatever constrained and painful; hence, indecision, irritability and the caprices of a character so modified; hence the difficulty of working among neurasthenics who are still able to work. "An accountant," says Bournet, "can calculate no more without making errors; a preacher can no longer follow the trend ef his ideas, nor coordinate the different portions of his sermons; a professor becomes incapable of following to an end the demonstration of a geometrical problem. The greater number of the patients thus afflicted see themselves, with great uneasiness, threatened with the necessity of renouncing their occupation."

"The unfortunate neurasthenic," writes Prof. Grasset, "does not revolt, does not struggle, becomes discouraged, and gives way to everything. His impressibility and emotions create a monster out of nothing; a small pebble becomes a huge rock, a shadow becomes a phantom. There results from them for him an apprehension and a veritable despair, because he is aware of his weakness and lack of reaction."

In addition there is an extreme and constant preoccupation for his condition, a minute anaiysis of all the organic symptoms and all the sensations experienced, a scarcely credible faculty of *auto-observation*. All that unfolds itself, usually by the delivery of a more or less detailed note to the physician on the origin and characters of the disease, by tne communication of some voluminous compilation, relating day by day the progress of the disease, and later by long letters intended to rectify or complete some insignificant details. These are almost certain indications of the neu-

rosis—the "man with scraps of paper" of Charcot is a neurasthenic.

The troubles of the mind can go still further; it is not always sufficient to the neurasthenic to concentrate his remaining attention on the troublesome symptoms that he experiences. He often creates imaginary perils, some absorbing and irrational obligations, which are evidence of a greater decline; the question of phobias then arises, of which we will speak later.

5. From cerebral weakness we approach muscular weakness or *amyosthemia*. Neurasthenics constantly complain of a sensation of general lassitude, of exhaustness of the forces, which manifest itself principally on awakening, or succeeds the least fatigue. This diminution of muscular energy of which the dynameter furnishes the objective demonstration, can be pushed to the point of necessitating the patient's remaining in bed for some weeks, or even months. However, there exists no modification of the sensibility of the reflexes, of electric reactions, or of the sphincters. There is here no question of a paresis of organic nature, but only of purely subjective phenomena because muscular energy which has remained latent may be rudely awakened under the influence of some powerful stimulation of the nervous system.

6. *Rachialgia*, which is the spinal analogue of headache, consists of pains spontaneous or induced, in the course of the spinal column; these pains most often take place at the bottom of the cervical region, or in the lumbo sacral region (plaque sacrée of Charcot), sometimes in the coccygeal region (coccydynia). One frequently finds shooting pains in the lower extremities coinciding with rachialgia without the subject presenting on the other hand any of the symptoms of tubes, Sometimes, in addition, dorsal pain is accompanied by scattered neuralgic pains, then it is the general neuralgia of valleix.

7. *Gastric troubles* are observed among neurasthenics with such frequency that they may take the rank of stigmata. It need not be thought however, there is a form of dyspepsia especially related to neurasthema. The greater number of the principal types of ordinary dyspepsia may be found in the latter.

. . . . . .

*Accessory symptoms.*—The symptoms of the second order may be divided uniformly enough among the greater number of organs, and this generalization seems to justify my opinion. The neurasthema held by Mead, *non unam sedem habet, sed morbus totius corporis est.* Let us review them systems by system, and analyse first of all the state of the functions of the *nervous system.* As regards the "intellect," one frequently notices outside the defects previously pointed out (weakening of memory, attention of will-power, autoobservatiou), an irritability of temper, an instahility of character, which belongs, it would seem, to a fundamental neuropathy, hereditary or acquired, rather than to neurasthema itself.

It is, also, extremely frequent to see patients absorbed in and dominated by the idea that they are smitten with some organic disease, for instance, a lesion of the heart or of the stomach. But contrary to what is passing among Nosomaniacs equally possessed of the idea of an organic affection, the neurasthenic only asks to relinquish his fixed idea, to be convinced of its fallacy—show him that he is wrong, furnish him with arguments, he coincides with your opinion at once and immediately recovers his spirits. Unfortunately it is quite as easy to discourage as to convince and he returns quickly to his melancholic ideas. The nosomaniac, as confirmed in his opinion as any maniac, will listen to your arguments with indifference or irritation, thoroughly convinced beforehand not to allow himself to be persuaded and in fact, you will never succeed in modifying his opinion even should this rest on no other foundation whatever.

Among patients possessing a hereditary degeneration, mental troubles may exhibit themselves in phobias and even terminate in mental alienation.

Besides amyosthenia, which we have previously discussed, *motor troubles* are not uncommon. Beard and Bouveret, describe some forms of paralysis; imperfect, variable and of short duration, most frequently proceeding by attacks of a few minutes only. Regis has even observed aphasia.

The weakness of the legs has been frequently noticed; certain forms of functional weakness, for instance writers cramp are far from being exceptional.

Recently Pitres has described the characteristics of neurasthenic *tremor*; the oscillations are short, rapid, vibratory, similar to those of exophthalmic

goitre or of ethylic tremor. Oftenest it is only apparent in certain conditions and must be sought for in the attitude of administering the oath for instance, it is exaggerated by fatigue, emotions, or by excesses. In short it is most marked at the period of the crisis of acute neurasthenia. When this symptom is permanent, Pitres recognizes its value as a symptom.

The same author has described among neurasthenics, muscular jerkings similar to those of paramyoclonus, of cramps, of rhythmic spasms of the neck, of the tongue, of the œsophagus, astasia-abasia, (which is not therefore always an hysterical symptom), instability in the vertical position. The *tendon reflexes* are often absent or diminished, sometimes normal, rarely increased.

In regard to *sensory troubles*, in addition to headache and rachialgia (of which we have spoken before) one notices an excessive susceptibility regarding external influences (heat, cold, moisture, or the electric condition of the atmosphere). Neurasthenics are barometric neuropaths of the first order. Besides they often complain of abnormal sensations, such ss creepings, prickings, burnings, lightning pains, pruritus similar to that observed in a certain number of neuroses. At other times there are permanent pains localized in one organ or one region of the surface (topoalgia of Blocq). Finally, we should mention among the abnormal reactions of the sensory nervous system those which frequently follow the ingestion of remedies. The neurasthenic is particularly susceptible in regard to medicines and reacts, to therapeutic agents, in an exaggerated or paradoxical manner.

The *organs of sense* do not exhibit any constant or special modifications. On the part of the eye, the nervous twitching of the eyelids is a common occurrence, conjunctival hyperæmia is frequent (Beard), the pupils, often dilated, may be for a short time unequal. Charcot and Pitre have noticed a transitory contraction of the visual field and spots before the eyes are not uncommon. But the most constant symptom is the participation of the visual function with the general asthenia, rapid and transient enfeeblement of sight on the least fatigue.

*Accommodative asthenopia* deprives the neurasthenic of many pleasures. Very often he is obliged to give up his correspondence and his reading. With this, the fundus oculi is normal, no one has ever found by ophthalmoscopic examination more than a slight retinal congestion. One often notes the over-exciteability of the *hearing*; the patients complain of whistlings and buzzing noises in the ears, they mention a troublesome perception, in the ear, of arterial throbbing, etc.

*Taste* and *smell* only offer for consideration some peculiarities of a neuropathic order. Salivation is frequently noticed. Certain disorders of taste have been particularly observed by Peyer, in that particular form of neurasthenia, called by the Germans, sexual neurasthenia..

The *circulatory system* presents a certain number of disorders, whose predominance characterizes a special form of neurasthenia, the *cerebro-cardiac neuropathy* of Krishaber. On the part of the heart, frequency of palpitations, or arrythmia, of tachycardia, of subjective sensations in the left submammary region, often accompanied by an abnormal force of contraction, give some color to the idea of a cardiac affection.

The *neurasthenic angina pectoris*, thoroughly described by Laudouzy and Huchard, is only one of the varieties of neurasthenic anger, and participates in the general characteristics of this neurotic manifestation; the duration of the crises is prolonged, the suffering may last hours, days, even weeks, without assuming the gravity of organic angina pectoris.

The pulse is generally unsteady; in the grave forms, a marked diminution of the arterial tension has been noticed, strong pulsations of the arteries of the temples, the neck and the epigastrium (abdominal aorta) are frequent. Let us describe again, in connection with the vaso-motor system, the frequency of emotional roseola, the congestive attacks which appear in the face immediately after a meal; the facile production of the symptom wrongly named *tache cerebrale*, coldness and alternating congestion of the extremities, etc. Beard has also described true attacks of neurasthenic fever (?)

The *respiratory function* is that least attacked in neurasthenia. At the most, there has been described in some cases a little dyspnœa, or a slight cough—dry and irritating—not at all connected with any lesion whatever of the thoracic organs.

The *genito-urinary* functions, on the contrary, are frequently deranged. Genital troubles possess an importance which serves to characterize one of the forms of the neuroses, the "*sexual neurasthenia*" of the Germans; we have explained heretofore that one might consider, in a certain number of these troubles, a cause or a consequence of neurasthenia, according to the theory adopted.

In the female, it is not uncommon to observe lesions of the uterus or its appendages, lesions whose reaction on the nervous saystem displays complex causes (persistent pains, sterility, despondency produced by the consciousness of a sexual infirmity), and which in their turn are unfavorably influenced by the general asthenia.

In the male there has been noticed, previous to neurasthemia, or to its origin, symptoms of genital excitement (excess of coitus, onanism), and later, a complete impotence. Any perturbation in the genital system strongly pre-occupies the patient. "Neurasthenics, writes Mathieu, are always very much affected by the existence of a genito-urinary affection, by blenorrhagia in particular, they are really smitten in their virility, in their self-confidence. When the discharge has almost totally disappeared, they are not released from their disquietude. They live in contemplation of their urethra. They pass hours in trying to express a drop of muco-pus. They dote upon the presence of some spirals, of some whitish filaments, in the first urine passed. Willingly they have recourse to injections, to catheters, to remedies of various kinds, often advised by persons of doubt ful competence. By these means they augment the affection, they maintain the prostatorrhea, which has left behind it the blenorrhagic discharge. Neurasthema is the consequence of that permanent condition of inquietude among neuropaths 'by profession.' A genital trouble often associated with neurasthema is spermatorrhea, the involuntary and frequently repeated discharge of sperm. In slight cases the seminal fluid flows on the least provocation from the beginning of an attempt at coitus under the influence of lascivious dreams; later, the evacuation of semen is produced during defæcation or micturition. The urinary system is generally least affected, however, some troubles of the bladder of cystalgia have been pointed out; and on the other hand, the frequency of displacements of the kidney, of which we will speak later. In short, Beard and Rockwell have mentioned tho abundance of urates, of phosphates, and of oxalates in the urine of neurasthenics.

(*To be continued.*)

## ANOTHER UNIQUE CASE.

BY E. J. BOYES, M.D., OAKLAND, CAL.

About 4 p.m., on December 21st, Mr. O. called me in great haste, and on our way to his residence, informed me his wife had been in labor for twenty-four hours, and was in a critical condition.

On the previous night, they had called the family physician, and he was still in attendance. A consultation had been suggested, because of the delay and a suspicion of mal-presentation.

A nurse was in charge, the baby wardrobe was warming before the fire, and there was present every circumstance of the usual lying-in chamber.

Dr. B. briefly outlined the history of our patient: the cessation of menstruation nearly *ten* months previous to date, gradual enlargement of abdomen and breasts, and, in short, an ordinary gestation in all respects other than time. The woman was about 45, rather stout, and quite healthy in appearance, and years ago had two children.

The powerful expulsive efforts suggested advanced labor. And I was informed that the waters had escaped hours before. My *confrère* asked me to examine her. While doing so, the husband ominously inquired if the child were "crosswise."

Meantime, I outlined the usual land-marks carefully, and noted a full flow of "waters" at the moment. But my finger was in contact with an undilated os. The cervix uteri was normal in size; the uterus was small and freely movable. The "waters" were being expelled from the bladder. In a word, she was not pregnant, and had not been; a piece of information which, when imparted to the family, caused them to look on me with suspicion as to my capability in such diagnoses.

However, with the consent of Dr. B., I gave her a little chloroform, and presently, not only did the bearing-down cease, but the abdomen collapsed.

And only then, and not too gracefully, did they accept my decision and relinquish their purpose of increasing the family forthwith.

## Selected Articles.

### THE DISSEMINATION OF TUBERCULOUS DISEASE BY MEANS OF INFECTED DUST.

The theory has been so readily established that tuberculous disease may be, and probably often is, conveyed into the receptive lung by means of inhaled dust, and precautions against the possibility of such conveyance have been so widely advocated, that it would seem to be superfluous at the present time to offer any observations or criticisms which might tend to throw doubt upon so simple and satisfactory a demonstration; but, however satisfactory the facts may appear to be when looked at from the purely experimental point of view it must be confessed that from the clinical standpoint they admit of considerable discussion. In order to satisfy the clinical mind it is necessary that evidence should be forthcoming to prove that those who are especially liable to the inhalation of infected dust should also be more prone to tuberculous disease than others who have not been so exposed. It is to the records of the hospitals for the treatment of phthisis that we should naturally turn for such evidence, and more especially to the records of the years anterior to the publication of Dr. Cornet's observations. It has, however, been abundantly proved that no such evidence is obtainable in this country. To take the experience of the chest hospitals at Victoria-park and at Brompton respectively, the figures collated and published by Dr. Andrew and Dr. Theodore Williams made it clear that no special liability to tuberculous disease could be demonstrated amongst the medical and nursing staffs of these hospitals during a period of twenty years. Quite recently Drs. Heron and Chaplin, in an article entitled "The Relation of Dust in Hospitals to Tuberculous Infection," published the results of a series of experiments made upon susceptible animals by actual injection of dust taken from wards occupied almost exclusively by tuberculous persons, and have shown that such dust possessed but little infective power. From these observations it must be concluded that the dust of a consumption hospital is not especially dangerous to those who must of necessity inhale it, nor does it always set up tuberculous disease in susceptible animals when introduced by way of direct inoculation. It is an old-established theory that dusty occupations are to be reckoned amongst the predisposing causes of tuberculous disease of the lung, and modern research has grafted npon that the view that such dust must be infected with tubercle, and that it becomes so infected by admixture of particles of dried sputum containing the bacilli. In the trades of the miner, the grinder, or the feather-sorter, although there is much dust, there is no direct likelihood of its being infected with bacilli, although such infection is not impossible if there be any sufferers from tuberculous disease amongst the workers. By far the larger quantity of tuberculous sputum finds its way—or, until the enforcement of recent precautionary rules, did find its way—into pocket handkerchiefs, diapers and cloths of all kinds. Sputum thus preserved soon becomes dry, and when the handkerchief or cloth containing it is shaken, minute particles of tuberculous sputum must be scattered broadcast. A special danger must therefore theoretically attach to those occupations which involve the handling, shaking, or tearing of old and dirty linen. Foremost among these must be placed the occupation of paper making. Anyone who has visited a paper factory and has passed through what is generally known as the "sorting-room" will appreciate what the danger (theoretically) must be. It is in these rooms that the large bales of linen rag are unpacked and are sorted into different classes by large numbers of pickers, mostly young girls or young women. The rags themselves are of the most varied description. Old handkerchiefs, old aprons, dusters, diapers, sheets, towels and every variety of wearing apparel may be recognised among them. Some are clean, but others are extremely dirty. In the process of picking and sorting, shaking, and tearing these rags an amount of dust is produced which in some rooms is so dense as to give the appearance of a mist around and above the heads of the pickers. The rooms as a rule are admirably lighted and ventilated, but on first entrance the cloud of fine dust is very decidedly irritating to the unaccustomed larynx. Under such conditions it would seem more than likely that some cases of tuberculous disease would arise amongst those who were required to inhale this dust for many hours in succession day after day, and who would most likely include in their number some who might be assumed to be predisposed to tuberculous disease by heredity or otherwise. Nearly all the workers, too, are of the period of life when such disease is apt to declare itself. In order to test the question I instituted a series of inquiries amongst some of the largest paper mills in England and Scotland, and by the courtesy of the respective boards of management and medical officers I am enabled to present the following results. In each case I asked the same series of questions, as follows :—

1. Does tuberculous disease of the lungs or other organs often occur amongst the young adults employed at the paper mill?

2. Is there any reason to believe that the inhalation of the dust in the rag-sorting rooms may be a cause of such disease?

3. Are the rags—such as old pocket handkerchiefs, etc.,—cleansed, disinfected, or wetted before they are sorted?

4. Have any cases of inoculation of skin been observed, or any case of lupus presumably due to the handling of infected rags?

To each and all of these queries I obtained negative answers. As regards the disinfection of the rags, it was stated by some that the bales of rags were opened and sorted without any preliminary measures. At Messrs. Pirrie's, at Auchmill in Aberdeenshire, one of the directors kindly took the trouble to write to me on the subject and stated that "the rags are not disinfected or wetted by us; they are presumed to be disinfected at the place of despatch if they have been in any way in contact with disease. What we do on receipt of the bales is to split them open and throw the rags into a mechanical duster, where they are thoroughly shaken up and dusted before being placed in the hands of our sorters." Dr. J. E. Fowler, of Auchmill, who sent me the direct reply to my questions, stated in answer to question 4 that "occasionally poisoned wounds of the finger happen, but only one case of lupus, and in that case the disease attacked the lip" From Mr. Wilkinson, of King's Norton in Worcestershire, whose special field of experience lay in the large works of Messrs. Baldwin, where paper of all kinds is manufactured and where the coarsest as well as the better kinds of rag are employed, I received negative replies to all four questions, with the following rider: "In a practice of twenty-two years at King's Norton I cannot call to mind a single case of tuberculous disease among the employés at Messrs. Baldwin's paper mills." In the extensive works of Messrs. Towgood, at Sawston in Cambridgeshire, nothing had occurred to suggest that the inhalation of the dust had ever been followed by tuberculous infection. From Bury in Lancashire, where are the mills of Messrs. James Wrigley and Son, Limited, the testimony of Mr. W. H. Barr was kindly supplied to me and bore out very fully the evidence afforded from other paper mills. Writing to the directors, he says: "During the twenty years I have been attached to the Dispensary and Infirmary, together with my observations as medical officer of health for a like period, I have perceived no connection whatever between the diseases named and workers in not only your paper mill but many others; moreover, as certifying surgeon under the Factory Acts, I have failed to notice any special connexion between the said diseases and the handling of rags, etc., in paper mills. I may add that the daily opportunities I have of observing such a connexion, if it existed, could not have escaped detection."

From the specimen replies which I have quoted it will be gathered that my questions were not answered off-hand, but that the answers were sometimes made through the boards of management and sometimes referred to outside authority, from which it is fair to assume that they were deliberately and carefully drawn up. To the many gentlemen who have thus taken the trouble to aid in this inquiry I have already expressed my private acknowledgments, and I gladly seize this opportunity to repeat them publicly.

The evidence thus afforded is, of course, open to considerable criticism. It is not easy to prove that the rags in question are infective or that they contain any remnants of sputum, tuberculous or otherwise; but it is a somewhat striking fact that such prolonged exposure to inhalation of fine dust, whether tuberculised or not, should be so seldom associated with phthisis. The facts, however, go to support the view derived from the vital statistics of the consumption hospitals that presumably tuberculised dust is not a striking factor in the dissemination of tuberculous disease. That it is occasionally such a factor must be held as proven by the results of experimentation under Dr. Koch's own supervision. Hence such negative evidence as I have brought forward must not be regarded as in any way suggesting that the strict rule of disinfection of tuberculous sputum may be relaxed. Such a scourge as tuberculous disease of the lung must be met and stamped out at every point where we may reasonably cope with it; but at the same time it is not advisable to rest assured that its dissemination is only effected by the agency of bacillus-bearing dust, since clinical observation abundantly shows that, in those very places where dust is most likely to be tuberculised, tuberculous disease does not appear to be disseminated.—*Clifford Seale, M. A., N.B., in Lancet.*

## SCIENTIFIC TREATMENT OF INEBRIETY.

The treatment of inebriates is invested with much mystery and superstition in the minds of the common people. Every few months the old superstition is revived and goes the rounds of the press, that in certain asylums inebriates are surfeited with spirits—everything that is eaten or drunk is mixed with spirits, until at last the spirit taste is destroyed never to return again. The only basis for this was an experiment made in Bonn, Germany, in 1863. Three inebriates were confined in a house and treated this way, by mutual consent. Two of them had delirium tremens, of which one died within a week; the other lived two months and died from paralysis. The third became insane and was sent to an asylum. The experimenter was sentenced to prison for life. No man with any practical knowledge would ever take the risk of such an experiment. No such method was ever attempted seriously, for the reason that nothing could be more certainly fatal to both the patient and the experimenter.

Another delusion is also common, that some

medicines may be given which will destroy the craving for spirits; or some kinds of food will have the same effect. All the numerous quack specific remedies for inebriety are based on this. Practically all these remedies are narcotics in disguise, and merely change the drink craze from the narcotic of alcohol to some similar drug. Opium is the most common, because it is cheap and can be disguised. Fusel oil is another very common ingredient of alcoholic specifics. Cocaine is also greatly used. It is safe to say that all these specific remedies for the cure of inebriety are not only worthless, but literally more dangerous than the alcohol itself. One of the shrewdest of these quack methods (sold for $10 under promise of secrecy) was a solemn oath not to use spirits for six months, to be signed in blood, which was furnished by the advertiser, and a pledge to submit to the most horrid tortures if he violated this oath, together with dark hints of how the advertiser could find out his failure to keep it, and how the punishment would follow. No medicines were given, simply an appeal to the fears and imagination. Strangely, this method has the strong endorsement of many persons who claim to have been fully cured by it.

Another less scrupulous schemer advertises a sure cure for inebriety to be sent for $5 in advance. In return the victim gets a plain card, on which is printed, "Stop drinking, and mind your own business." Over a dozen specific medicines are advertised for the cure of inebriety, all of which are base swindles, and yet they flourish and fatten on the superstition and credulity of the poor victims who are looking for help. If the friends of the inebriate would exercise common sense, and observe closely the history and conduct of such cases, very different impressions would appear. When the inebriate and his friends become alarmed and begin to look about for help, the case has always reached an advanced stage and become chronic. To this there are very few exceptions. A man who has been intoxicated many times, or one whose steady drinking has so far impaired his power of control that he cannot stop practically, no matter how strong he may appear otherwise, is an advanced case. All mild methods and remedies are useless.

A man just beginning to use spirits may sign the pledge, and be helped by it; but a few years later, when the continued use of spirits has impaired his higher brain power, and made him more or less incompetent to realize his condition or to appreciate the relations which he sustains to the world and his friends, such means are largely powerless. They are not to be ignored, but are to be used experimentally with other methods.

All inebriates are of necessity brain and nerve-exhausted cases. Alcohol has in all cases perverted and damaged the nerve processes and functions, and debility and exhaustion with lowered vitality are always present. Such cases require positive, tangible, physical remedies. Appeals to the mind and spirituality of the man are addressed to defective and damaged powers of the brain. He must be taken out of his old surroundings; he must have new environment, new conditions, that can be regulated and anticipated by others. No matter what his life has been, he must have a change of all his conditions of life and living. This can be had most perfectly in an institution. Here he can be free from the contagion of spirits, the spirits can be kept away, and he can be protected from gratifying every morbid impulse to procure it. The diet and regularity of living can be enforced, and all the conditions of physical vigor and training can be put in force. The man must be trained back to sobriety—not driven back, or coaxed, or pledged, or converted, but taken back step by step along the line of natural laws of growth and development. His body and brain must be trained and developed as far as possible to abstain from all narcotics of every kind, of which alcohol is the most dangerous. He is sick, palsied, worn out prematurely, and needs nerve and brain rest. The failure to live a temperate life is the evidence of this. This training process has for its first object the physical development—the improvement of nutrition by regular diet of the best character; the building up of the brain by medicines, rest, change, and diversion; the repair of the organs of the body by exercise and baths. The higher brain power soon feels the new life and vigor from this process, and responds to the prayer and pledge, and the efforts to live a more rational existence. Many poor victims from all circles of life have never been in training along these lines of physical and mental development. For the first time they realize the power of correct living, correct, healthy surroundings, the need of brain rest and brain culture along paths they have not known before. The worn-out money-seeker dies leaving a fortune, and a family of low vitality, unable to bear the strains and drains of a busy life. Unconsciously they turn to alcohol and opium for relief, and soon become helpless victims. The asylum, with its quiet, steady applications of nature's forces addressed to all parts of the human body, is the only hope for the future. There is no "short-cut" or by-path to a healthy temperate life—no specific remedy that will remove the tearing down process of alcohol—no will-power that can restore the lost vigor or the damaged brain centres of control. To stop the use of spirits is only one step; to repair the conditions for which alcohol is unconsciously taken is another equally important. It is not a question of original causes, but is one of present conditions. The inebriate has a compound and comminuted fracture that requires the application of splints

and bandages, and every condition for restoration along the lines of nature's laws.

The scientific treatment of inebriety is simply the application of every means known to science, experience, and common sense; to remove the patient to the safest surroundings; to repair the injuries done to body and brain, and build up the man so as to prevent future failure. This can only be done effectively in literal training hospitals, where the physical comes first, then the mental and spiritual. It is no implication that the exclusively moral means urged by many good people are not valuable, but science teaches that their value depends on the conditions and time in which they are used. The appeal, pledge, or prayer does not reach the starving man; but give him food to build him up, and these means are valuable. The inebriate is starved in a most literal sense, and needs relief and literal help first. All asylums and hospitals where inebriates are treated are based on this fact: Removal of the spirits, and repair of the brain and nervous system, gives the most certain possibility of cure and restoration. Experience shows that a certain increasing number of inebriates are permanently cured in these places every year, Unfortunately for asylums, nearly all these curable cases disappear from view, and never refer afterwards to the benefit received from such places. Public sentiment makes it necessary for many persens to conceal this part of their life. On the other hand, the incurable, who has not received any permanent good, takes pains to condemn the asylum and its work, and is a standing monument of his own failure. The very few asylums now in operation are only the advance guard of a new era in the treatment and cure of these cases. There are many reasons for believing that not far away in the future every town and city in the country will have hospitals for this class, the same as for the insane at present.—Dr. Crothers, in *Am. Lancet.*

## WHAT ARE THE INDICATIONS FOR A VAGINAL EXAMINATION?

Believing that a large proportion of the members of this section are men in the practice of general medicine, it seems fitting that the writer should discuss a subject which, although it may seem prosaic, is certainly of importance, and that especially to the general practitioner. Fortunately the time is passed when a man who makes a vaginal examination, on a proper indication, is regarded as immodest or a charlatan. Diseases of the pelvic organs demand a correct diagnosis just as clearly as do diseases of the thoracic organs, and the man who neglects diseases of the one is as worthy of censure as the one neglecting the other.

By the use of the term "vaginal" examination, I do not mean to convey the idea that the vaginal is the only examination made at the time; it is usually a part of the bimanual. I speak of it only as one of the elements in a procedure which leads to a knowledge of the condition of the pelvic organs.

The object of this short paper is not to exhaust the list of indications for this examination, but to bring before the general profession the need of being on the alert for symptoms pointing to disease of the pelvic organs, and to refer chiefly to those which seem to be neglected.

For purposes of present discussion we will divide a woman's life into three periods:

1. Prior to marriage.
2. Married life during child-bearing period.
3. Near or subsequent to the menopause.

The indications for a vaginal examination in a young single woman are relatively few, yet they do exist and are imperative on a conscientious physician. One is often consulted by anxious mothers because their daughters do not menstruate as early as they themselves, or other members of the family, did. Here not only is a vaginal examination of the patient not indicative, but as a rule it is to be strongly deprecated. In general we may say that, leaving out of account illegitimate pregnancy, the only cases of amenorrhœa demanding vaginal examination are those of atresia of the genital tract, or symptoms of absence or lack of development of the generative organs when the question of marriage is at stake.

Mild cases of dysmenorrhœa do not call for a vaginal examination. Every honest gynecologist will admit that the longer a woman can go without the thought that she has trouble with her pelvic organs, the better it is for her; and for this same reason we sometimes meet with individuals neurotic, and inclined to be despondent, in whom, although we find on examination some slight departure from the normal, yet the best advice is that they receive no local treatment; and this advice we give, fearing that repeated examination may fix her mind upon, and strongly color her whole horizon with, the idea of uterine disease.

We all of us know how wretched a woman is who will sit in one's office and describe the pathology of the different diseases of each of her pelvic organs. This description need not be prolonged. The picture is familiar to most of us, and needs only to be kept in mind to warn us that, not without good reason, should we subject a patient to repeated vaginal examination and treatment.

There are cases, however, of dysmenorrhœa of a more severe type, where the patient, in spite of all authorized medication, is confined to bed three or four days of every month, and with suffering indescribable. In such a case the writer believes not only that a vaginal examination is proper,

but demanded. Such an examination is often best conducted under anæsthesia, for the purpose of avoiding both pain and mental shock. One other symptom in a young unmarried woman often indicates a vaginal examination, viz., an almost constant pain in the lower region of the back. We all know that this may be a symptom of many diseases, yet if the physician can find no anæmia, nephritis, or other general condition accounting for it, by all means let the patient have the benefit of a thorough pelvic examination, and have it ascertained whether her pelvic organs are displaced or not. As to whether this examination would best be conncted per vaginam, per rectum, or with the two combined, we shall not now discuss

The next period concerning which I shall speak is *married life during the child-bearing period.* Perhaps the first indication for a vaginal examination will be pregnancy. It is a common practice among many physicians, even in this city, not to examine a pregnant patient until called to attend her in labor. The writer believes this practice to be wrong. Many a life both of mother and child has been exposed to peril which, had the condition of the pelvis and pelvic organs been previously known, might have been averted.

Pregnancy itself constitutes an indication for a vaginal examination, and long before the time of the expected labor the pelvis and its contents should be carefully examined. Nor does the indication for a vaginal examination cease with the parturition. Before the parturient is discharged from the care of her physician, it should be the duty of that physician, after having thoroughly cleansed his hands, to carefully examine the position and condition of the patient's pelvic organs. This examination is perhaps even more demanded in the lower classes of society than in the higher, for at a time when, by the stern necessities of life, the former are obliged to resume their usual household duties, the uterus is often large, flabby, and easily displaced. Before the physician makes his last obstetric visit on such a case as this, he should ascertain whether or not the uterus lies in the hollow of the sacrum, and if found there, an attempt should be made to replace and maintain it in proper position until involution is complete.

A very large number of the patients who present themselves to me at the Roosevelt Out-patient Department, come suffering with posterior displacements of the uterus, and of these a large proportion can be traced to a puerperium in which this displacement has occurred, and not being discovered, has been allowed to continue until the uterus has become fixed, the patient subjected to months of suffering, and weeks or even months may be required before the condition can be relieved. Most of this could have been prevented by due care following parturition. Preventive medicine is the key-note of our profession to day, and of this prophylaxis preventive gynecology should form a prominent part.

Nor should the responsibility of a physician, in a case of obstetrics, cease with what might be called his last obstetric visit. I believe that in the near future the physician will consider it his duty to examine each obstetric case at the end of two or three months after her confinement, to ascertain by vaginal examination not only the question of the uterus being in its proper positition, but also the condition of the patient's cervix; and whether at the expiration of lactation a trachelorrhaphy will not be indicated before her nervous system has become undermined and perhaps malignant disease has started. If we take these precautions in our own obstetric cases, we must be on the lookout for symptoms with similar indications in patients who were formerly in the hands of others. The discussion as to whether a cervical laceration needs operation will not concern us here; we are all pretty thoroughly agreed that *bad lacerations need repair.*

Another symptom in which a vaginal examination is often neglected is menorrhagia or metrorrhagia. Many a case has come under the writer's observation where a patient has been allowed to bleed for weeks, perhaps for months, while the physician soothed his conscience by prescribing some ergot or hydrastin, or by telling the patient to come and be examined when her flow ceases; but never taking the trouble to ascertain by vaginal examination whether the patient has a polypus, a cancer, or needs to be curetted. There is ground for great improvement in this mode of practice. Many a patient's health has been ruined, many a valuable opportunity has been lost, by just such neglect of the vaginal examination and the information it would convey.

While the previous indications for the vaginal examination are important and their neglect greatly to be deplored, they all shrink into insignificance when compared with the indications which are more common during the last period of life, of which I shall speak, viz, *Near or subsequent to the menopause.* I refer to symptoms of malignant disease. It is unfortunate for the profession, and still more unfortunate for the patient, that the impression is wide-spread that floodings at the menopause are normal, and therefore need no attention. The soothing explanation of "only the change of life" has been the funeral dirge of many a death from cancer of the uterus.

Another unfortunate circumstance for both physician and patient is the fact that uterine cancer, in its early and operable stage, is often associated with no pain. Being handicapped by these two circumstances, the physician must be more and more impressed with the fact that he

must be ever on the alert, especially at this period of life, for symptoms which might mean cancer. It is not enough that these symptoms may be explained on other grounds; if there is the slightest suspicion, from the appearance of an irregular flow or discharge, that the patient might possibly be suffering from incipient malignant disease, a vaginal examination should be made, and malignancy if possible excluded. Why is it that so many more correct diagnoses of ectopic gestation are now made than formerly? It is simply because the profession is now on the lookout for that condition. This ought to be more and more the case in the search for cancer. Mistakes will be made and cases diagnosed malignant which are not, just as cases are diagnosed ectopic gestation which are not; but better far an error in this direction than in neglect till past help. It is the general impression that in early life we need have very little fear of malignant uterine disease, yet even here we find we are not safe. It is only a short time since the writer had under his observation a patient suffering with inoperable malignant disease of cervix and vagina, and who died before she reached the age of thirty. It is only by bearing in mind the fact that uterine cancer is possible at almost any age from puberty till death, that we can appreciate the importance of a vaginal examination, when presented with symptoms which are associated with malignant disease. Certainly in a patient who has passed the menopause and then experiences a bloody flow, not a day should elapse before an attempt is made at an accurate diagnosis.

This need of alertness in search for malignant disease will apply even more to the general practitioner than to the specialist. It is the family physician who is usually first consulted, and he it is who usually has the privilege of an early diagnosis.

The technique of operation for uterine cancer seems well-nigh perfect, but there is still a field, a large field, for improvement in early diagnosis. There is where we hope we are to make advance in the near future. The writer this evening does not expect that he has presented anything new. The object of the paper was entirely practical, viz., to impress upon the profession the need of alertness for indications for a vaginal examination. —Edwin B. Cragin, M.D., *in Med. Rec.*

## WORKERS AND WEARINESS.

Professor Michael Foster has published his Rede lecture in the current number of the *Nineteenth Century*. Weariness is his subject, and it is one which demands the intelligent thought of all people of the present day. We recently called attention to the insanity which refuses to recognize weariness as the most dangerous symptom of mental fatigue. It may be true or false that the world will not see the year A.D. 2000. It is, however, undoubtedly true that the Mother of Parliament, as the present House of Commons delights to cal itself, is being rapidly reduced to a state of impotence which threatens the national safety. It is notorious that very young people frequently have abnormal energy which spurs them on to acts of foolhardiness, which may, and frequently do, have a fatal termination. It would be impossible for any business undertaking of importance to be conducted successfully on the principles which at present govern the conduct of business in the House of Commons. Those principles as laid down by the Premier in the resolution of which he gave notice for Monday, and which were to apply to the rest of the present, and the whole of the autumn, session, could have but one result. In its modified form it is fatal to all useful legislation. That it was not strenuously opposed proves to demonstration the condition of weariness to which Members of Parliament have been brought. Any legislation pushed forward by the continuous use of the spur and the whip must prove defective and harmful to the well-being of the people. Members of Parliament being men are subject to physiological laws as all are, and the absence of proper rest, and the refusal to conduct business within reasonable hours can only result in breakdown and disaster. The plan of business formulated by the Premier is opposed to every principle which enables any average mortal to master his work and maintain his health. In an ordinary business any such experiment as that about to be tried upon the House of Commons would very properly end in bankruptcy. We are no doubt a long way removed from national bankruptcy, but the ship of state is now within measurable distance of irreparable damage and discredit. This is not a political journal, but common-sense makes it apparent that the well-being of the people and the State demands the prompt presentation of a monster petition to the House of Lords not to pass the Appropriation Act, and to the Queen, urging the exercise of her prerogative, by the immediate dissolution of the present House of Commons.

Let us now see what Professor Foster has to say on the subject of weariness and its effects upon men and women. It is a popular belief that weariness is a physical symptom alone; that is to say, people become tired because their muscles are weary, whereas, in truth, muscular weariness depends not on the muscle alone, but on the manner in which the muscle in its work is aided and supported by the rest of the body. "The blood, sweeping throughout the whole body, washes out of the muscle all hurtful bodies, providing always the blood-stream is pure. If the blood-stream be sluggish, or if the blood coming to the muscle be already loaded with hurtful bodies, the clearance

is slow or wholly fails, and weariness comes on apace. But even the simplest and rudest muscular tasks are not carried out by the muscles alone, for the brain and the nerves share in them too. It is a common experience that when we are weary almost, it may be, to death, some sudden emotion, some great joy or fear, may spur us to an effort which just before seemed impossible; conversely an emotion may appear to take from us all our muscular strength. Now the muscles neither know nor feel; their weariness cannot be affected by any emotion. That weariness which is put aside by hope, or which is hurried on by despair, must be weariness not of the muscles, but of the nervous system." It would be interesting to follow Professor Foster as he goes on to prove the difference between the brain and the nerves, the brain being, of course, the central mechanism, the nerves mere bundles of fibres which carry the impulses to the muscles. We must, however, refer our readers to the article itself for this and other information, and would direct their attention especially to the experiments by which Professor Foster proves that the greater part at least of weariness is begotten not in the muscle, but in the brain.

Let us now consider a few of the mental symptoms of fatigue or weariness. Professor Foster insists that two facts must be grasped and remembered. While it may be said of each member that the blood is the life thereof, it may with equal truth be said the blood is the death thereof; the blood is the channel for food, but it is also the pathway for poison. Again, all our knowledge goes to show that the work of the brain, like the work of the muscles, is accompanied by chemical changes, that the chemical changes, though differing in details, are of the same order in the brain as in the muscles. It is true that the changes in the brain are smaller than those of the muscle, but this is counterbalanced by the exceeding sensitiveness of the nervous substance; the last fact giving point to the caution that to do the maximum of brain-work it is essential not to render the brain more agile, but to encourage its humble helpmates so that their more efficient co-operation may defer the onset of weariness. Mind and body being thus intimately associated, no sensible person will risk the destruction of health by neglecting either the one or the other. Sleep, good food, healthy surroundings, rational hours of work, and sufficient exercise, are points which many people have long recognized as essential to their well-being; yet the race for wealth, or for political advancement, or the mere struggle for existence, may cause the most enlightened to neglect them. At first a man so circumstanced attributes his lassitude, which is usually confined to the early morning, to anything but the right cause—a feeling of depression and a sense of ill-being may make him miserable, but unless his doctor takes him in hand they will not check his downward course. Next he will become oppressed with the need of increased effort, a loss of memory, and the difficulties of remembering what he reads. To this point a man may advance without fatal injury, but should he proceed until everything appears to him dark and hopeless, a worry and an apprehension, then he may be beyo rescue, and his next step may land him in a lunatic asylum if it does not terminate earlier in a graveyard.

Dr. Cowles, of the McLean Hospital, has written a most interesting paper on the mental symptoms of fatigue, which all brain-workers should read. He shows in a practical way how difficult it is to restore the weary to energy and strength. Overworked women, professional men, politicians, and others, "work on their nerves," and say they "don't feel tired, and nothing is the matter." Many of them, indeed, insist that they feel better when actively pursuing their ordinary occupations. Dr. Cowles declares this condition, which comes on insidiously, to be a most dangerous one. With the impairment of the natural fatigue sense the mental effect is that a man will not believe even his physician's diagnosis of fatigue. He is, therefore, prone to look for some other reason for his sense of ill-being and inefficiency, and finds in retrospection cause for self-reproach and hopelessness in the future, or insists upon a revolution in his affairs as the only remedy for a condition of which he himself is the central cause. Here, then, we arrive at the two great factors which have to be faced to-day in our national and political life. The first, or retrospective cause, lies at the root of the present epidemic of suicide of which the papers are full. The second, or impairment of judgment cause, lies at the root of the political *impasse*, which its authors declare can be cured only by revolution. The papers of Professor Michael Foster and Dr. Cowles are therefore most timely, and if the lessons they teach can be driven home they may prove fruitful by producing a more natural and healthy tone, not only in our Parliamentary, but in national life too.—*The Hospital.*

## SLEEP, SLEEPLESSNESS AND HYPNOTICS.

A theory of sleep phenomena, to be complete, must have data for its construction drawn from wider sources than we find have been surveyed in the average physiologic essay on the subject.

Notwithstanding the strides made by biology, more particularly in its morphologic aspects, the past quarter century had added but little to Wm. B. Carpenter's summary of "Sleep and Somnambulism," in his famous "Physiology," or what is

contained in J. G. McKendrick's article in the *Encyclopædia Britannica.* A full bibliography is given in the *Dictionnaire Encyclopédique des Sciences Médicales;* McNish, Durham, Kohlschütter, Pflüger and Mosso afforded the main discussions, which have been added to but little by later writers.

Herbert Spencer *(Principles of Biology,* Vol. I., Chap IV.) on "Waste and Repair," summarizes much that could be more directly applied to a satisfactory consideration of the study than was required in his "Synthetic Philosophy."

Spencer notes that reptiles maintaining no great temperature and passing their lives mostly in a state of torpor, suffer but little diminution of mass by waste, but with the higher order of animals which are active and hot-blooded we see that waste is rapid, and when unchecked, bulk and weight decrease, ending very shortly in death. From these and allied considerations, he formulates the dictum that in the same creatures there is most waste when most motion is generated. Valentin computes the carbonic acid exhaled by the waking marmot as seventy-five times more than when it was hibernating, and the oxygen inhaled was forty-one times greater in the waking state. Invalids who are able to take scarcely any nutriment, by being kept warm and still, are able to lessen waste by thus reducing force expenditure.

Experimental comparison between the hibernating marmot and starving pigeon shows the latter loses forty times more muscular substance than the torpid marmot, eleven times more fat, thirty-three times more alimentary canal tissue, eighteen and three-tenth times more liver, fifteen times more lung, five times more skin, so that the parts least consumed in hibernation are the hydro-carbonaceous deposits which serve as a store of force, while in the awake and active pigeon, equally unsupplied with food, the greatest loss takes place in the motor organs. The diminished ability of bodily organs to perform their functions after activity, is noted. That legs, arms and eyes become enfeebled, and that concentrated attention prostrates the brain, are familiar truths.

Repair is everywhere and always making up for waste. While awake, waste is in excess and repair is going on, but not to the same extent as when asleep; though repair is at this time in excess, still some waste is necessitated by the carrying on of never-ceasing functions.

"During activity, the reintegration falls in arrears of the disintegration, until, as a consequence, there presently comes a general state of functional languor, ending at length in a quiescence which permits the reintegration to exceed the disintegration and restore the parts to their state of integrity."

Extending these considerations of Spencer and those who had previously written to the same effect, we are confronted with the fact that tissue restoration is undeniably a chemic process, and the queries arise, why, in such states as cerebral congestion, with its surplusage of blood, the brain may not rest, and why should sleep occur at all if there is proximity of food to the tissues undergoing waste?

Surveying the physiologic accompaniments of sleep in all animal life, we find that in the simplest forms, surfeit and extreme privation arrest motions, and the rational explanation of this would be that the majority of molecules that compose such simple forms are relieved of tension, either by the completion of molecular construction or by their not having within combining reach, atoms with which combinations are possible.

Nutritive processes are certainly carried on during sleep, and the quiescence of sleep facilitates this action by staying the waste of such tissues as are most in need of such reparation and, obviously, nourishment is transferred from such parts as can spare it best to those that are deficient in this regard. If repair were instant and incessant upon waste, then sleep would not be needed to transfer nutrition about the body, and one of the best evidences of this is that, often, massage may so redistribute blood and feed the jaded tissues as to largely take the place of sleep, at times rendering it unnecessary. At other times, massage or a warm bath may induce sleep more rapidly by starting a redistribution such as takes place normally during profound sleep.

If we look upon sleep as merely an *effect,* or an accompaniment of a nutritive process, and as not in every case even a necessary one, we substitute a regard for the real instead of the apparent phenomenon.

In æstivation, amœbic encystment, hibernation, the absence of food requires quietude that will conserve what little there is present in the animal itself. In plethora, apnœa, etc, this quietude is enforced by the surcharged molecules being incapable of further assimilation, which drops the activity of the entire animal towards the lowest expression.

A parallel is afforded by the action of soil which at times agriculturists claim "needs a rest." It is conceivable that time may be necessary to effect certain chemic combinations even in the presence of the requisite elements for the soil restoration. Fertilizers of appropriate sorts may cover the exhausted soil, but time is needed for the assimilation of such fertilizers and the ground must lie fallow until its productive capacity is regained, however long this may require; and very likely this necessity for a greater or

less loss of time in building up complex cerebral or sarcodal structures explains why sleep occurs, and shuts off further decomposition until reconstruction can take place. The limit of comfortable activity having been reached, sleep takes place because further drain through waste may be distressing, and this discomfort becomes agonizing when prolonged, a fact taken advantage of by the Chinese as a method of torturing criminals.

Less heat and carbonic acid being produced during sleep further indicates the reduction in chemic decomposition that then occurs. Helmholtz estimates 40 calories produced during sleep and 112 when awake. "He who sleeps, dines," is an old saying, and much sleep favors obesity.

Mass motion being suppressed in sleep enables molecular rebuilding the better, as the molecules are not then engaged in the major activities but eat, so to speak, themselves, while the body rests, just as workmen take an hour off to dine, and discontinue the work upon which they are aggregatedly engaged.

Whenever supply is constant to the animal or to its tissues, the necessity for sleep diminishes in proportion to the ability of such animal or tissues to rapidly reintegrate the compounds destroyed. The differences between the sleeping habits of animals are thus at once explained. It is conceivable that animals may exist whose nearly every cell is so constantly bathed in absorbable food as to place it comparatively beyond the need of sleep, but such animal, as a rule, could not be very highly organized, or, like the sloth, could not be very active, and the *rete mirabile* in the axilla of the sloth shows how part of the muscular strain is provided for while the animal hangs to the tree.

A still further important factor in this connection I communicated to *Science*, New York, Nov. 11, 1892, in an article entitled, "Preliminary Note on Sleep."

"That there is a relative anæmia of the brain during sleep is well established, but the hypotheses advanced to account for this or any other of the sleep phenomena are unsatisfactory. In "Comparative Physiology and Psychology," 1884, I treated the subject briefly, and since then have been gradually accumulating and arranging data for a theory which I have finally adopted, and which appears to me to be fairly complete as enabling the major phenomena to be accounted for.

"Briefly stated, where there is physiologic waste there is, normally, repair, and the activities of the brain demonstrably are kept up by renewed nutrition derived from a blood supply adjusted to the ordinary needs. When there is cerebral anæmia, as in chlorosis, then there is increased desire to sleep, the brain does not receive the necessary quantity to compensate waste, and it rests, just as any commercial activity will cease with withdrawal of means to continue it. Those who are familiar with my nutrient reflex theory, mentioned in the book referred to (Professor C. K. Mills, of the Pennsylvania University, and Professor C. L. Herrick, of the Dennison, Ohio, University, have written approvingly thereon), will understand that with the cessation of sensory stimulation there will be less blood attracted to the brain and other nerve centres, the heart-beats lessen in vigor and number, and, with the pulse-rate fall there is ordinarily less blood in the brain.

"Now, it is evident that the anæmia of sleep is not caused by constricted blood-vessels, else there would be the facial pallor seen during an attack of epilepsy, or paroxysm of anger or fright; and with this quieting of the brain processes by stimuli withdrawal, such as is afforded by darkness, silence and absence of irritation generally, a further lessening of molecular interchange in the brain occurs; and I claim that *it is the molecular activity in the brain that attracts the blood there chemically and mechanically*, and the sympathetic, or vaso-motor system has been evolved to facilitate this regulation of demand and supply. Then, granting this, there will be, during sleep, a passive condition of the blood-vessels, and the blood supply will fall to a minimum.

"An extension of these considerations will enable all that pertains to sleep to be accounted for, such as æstivation, hibernation, insomnia, dreams, and all derangements of sleep."

At this stage we may conveniently condense what otherwise could easily fill a volume, in reviewing as much of sleep phenomena as may be necessary to test the consistency of this mainly chemic theory. Larval and fœtal inactivity or sleep, the prolonged sleep of infants, and the drowsiness of pregnant females can be understood as demands for lessened activity during constructive processes. An army is recruited and accoutred before it fights, and the molecular cell-building is the process of getting ready for the major life activities.

The suspension of consciousness during sleep is apparently due to the lessening of function of organs generally. Consciousness, being a function of the gray matter, or central nervous system, is in abeyance because the gray matter is undergoing reconstructive rest as well as other portions of the organism. Imperfect sleep and dreams are caused by this rest not being complete, the circulation in these centres being irregular.

Worry notoriously exhausts more than many kinds and degrees of work, and sleep overcomes the exhaustion produced by this as well as other excessive brain taxation. In such instances we have a painful cerebral activity, and the molecular

breakdown is greater than in simple mental application.

Stimuli withdrawal ordinarily lessens the nutrient reflexes, less blood is forced to the head, and the fall of blood-pressure in the medulla drops the heart-beats to a lesser number through pneumogastric action. Closing the eye reduces optic excitation, noises are heard and the blood does not immediately fall to a minimum in the brain, hence sleep may not appear until time has passed. As the vaso-motor reflexes are less and less called upon, an ebb of blood finally admits of obtuseness to noises, etc., when they do occur. With the restoration of general cell-nutrition, the desire for activity increases and general reflexes are easier provoked. The nutrient reflexes of the brain now begin to send blood there upon stimulation, and the person awakes with the noises and light of day, or upon slighter provocation, if these are absent. The instance is often cited of a boy who was blind and anæsthetic, who fell asleep when his ears were closed to sounds.

But stimulation is a relative matter, for many who are accustomed to continuous noises become adjusted thereto, as does the miller who is awakened by the machinery stopping. In Arctic regions, also, the exclusion of light is not necessary to induce profound sleep.

Somnambulists have been separately classed as the speaking, the acting, the speaking and acting, and the hearing, seeing, speaking and acting. In all these, consciousness is absent, hence somnambulism is more or less automatism of important organs; dream acting. Sleep, to be complete, must overtake all portions of the body, and if from any cause irritation persists in any part, as during pain, then imperfect sleep results. It is conceivable that a speech centre, centres for arm and leg movements, etc., may be hyperæsthetic independently of the adjacent parts. Dr. George W. Jacoby, in a paper read before the New York Metropolitan Medical Society, Feb. 15, 1893, ably surveys the matter of "periodical sleep seizures of an epileptic nature," in which this sort of unconscious automatism is mentioned, and he believes that there is a relationship between the corpulence in some of these cases, such as that of Dickens' fat boy, Joe, and perverted nutrition due to a pathologic condition in the psychic centres. Dr. Jacoby concludes that "sleeping attacks, occurring alone or in combination with other symptoms, if of brief duration and followed by amnesia, are probably epileptic in character. If somnambulism, particularly of a noisy kind, is present, this probability becomes a certainty."

In narcolepsy, he claims that there is consciousness of what is going on during the attacks, the patient is not obtuse when awakened and he at once has full possession of his intellectual faculties. In this instance it would seem as though consciousness was the only faculty that was not asleep. Hysterical lethargy is associated with other evidences of the disease, such as more or less hemianæsthesia. Hysterical sleep, in my opinion, is directly due to partial brain ischemia through contracted blood-vessels to one or more parts. The amblyopia, deafness, aphonia, etc., could be also thus accounted for, as well as the fact that sudden impressions, or the cerebral suffusion produced by nitrite of amyl, cut short the attack.

The prolonged somnolence of cerebral syphilis, Buzzard (Diseases of the Nervous System, p. 288) assigns to the remarkably thickened walls of the arteries at the brain base—usually of a nodular character—diminishing the calibre of the vessels. Huebner, in *Ziemssen's Cyclopædia*, also has important observations upon this subject: "The consequence would appear to be that the cortical substance of the hemispheres must be starved of blood to a considerable extent."

The great sleeplessness of mania for long periods and the supervening emaciation, show that not only cerebral but general rehabilitation is interfered with; waste is not only in excess of repair but the latter is seriously impeded by disease. Hence the necessity for sustaining treatment in this disorder. I have occasionally known stimulants to secure an abatement of the furor and produce sleep, when other routine measures merely added to the trouble. The hot bath, while temporarily beneficial, too often is followed by collapse, additionally going to show the necessity for sustentation in many of the cases that are frequently overdosed with depressants. — S. V. Clevenger, M.D., in *Jour. Am. Med. Assoc.*

*(To be continued.)*

---

CRIMINALS AND CRIMINAL ANTHROPOLOGY.—The new school of criminal anthropology, as represented by Lombroso, Benedikt, and others, insist that criminals have the marks of physical 'degeneracy' writ large upon them in certain peculiarities of size and conformation of skull and brain, ear, eye, and body generally. In other words, according to these observers, the criminal has a characteristic physiognomy whereby he can be known, and which, like the rattle on the tail of the crotalus horridus, should put society on its guard against them. That there is a solid basis of truth in the teaching of Lombroso and his followers no physiologist would deny, but it must, we think, be admitted that criminal anthropology is at present very far from being an exact science. It would be as unjust to condemn a man accused of a crime because he looked a Caliban as it would be dangerous to acquit another because, as Sydney Smith said of Francis Horner, he had the ten commandments

written on his face. A good deal of dissatisfaction has been expressed by French scientific men that the body of the recently-guillotined anarchist Vaillant was not handed over to them for purposes of research. It may be doubted whether criminal anthropology has lost anything hereby. A writer in the *Revue de Thérapeutique Médico-Chirurgicale*, who for three weeks had daily opportunities of observing Vaillant, gives the following particulars of his appearance. He was middle height and well-proportioned figure. With the exception of the head of an Indian surmounted by two crossed arrows tattooed on his right forearm, there was no mark or blemish on his body. His hands showed the usual marks of hard manual labour. His head was rather larger than the average, well developed, and presented no asymmetry. The forehead was high ; at its base the supra-orbital ridges stood out in prominent relief. The nose was thick, and somewhat aquiline, of the type called by Adrien Marx "the thinker's nose." The jawbones were not disproportionately developed ; the eyes were large, dark, and rather deep set, looking one full in the face with a bold, confident, but not violent expression. Altogether, Vaillant's physiognomy impressed the observer not unfavourably, and the stigmata of the criminal as described by the criminal anthropologists may be said to have been conspicious by their absence. Vaillant's intellectual equipment, though very deficient, was more that of a clerk than a working man, and he had even something of the "artist" in his mental constitution. During his imprisonment, he showed a tranquility of mind, an evenness of temper, and an indifference about the future which surprised those about him. Vaillant certainly seems to have had at least one characteristic of the artistic temperament—the love of notoriety. His "act," as he called it, was probably prompted more by this than by any desire to regenerate society by purging it of the *bourgeois* element. It was doubtless love of artistic effect which led Nero to make torches of Christians for the illumination of his gardens, and to set fire to Rome that he might see it burn to his own music. We cannot help thinking that the morbid love of notoriety fostered by the cheap newspapers of the present day with their blood-curdling "bills" and their puffing paragraphs, is responsible for more crime and is a greater danger to society than "atypical confluence" of the fissures of the brain and the other signs relied upon by criminological Zadigs.—*Brit. Med. Jour.*

Oil of Peppermint in Pulmonary Consumption.—Dr. Carasso has recently published (*Deut. Med. Woch.*) a new method of treating pulmonary consumption by means of the continuous inhalation of the oil of peppermint, with the internal administration of the same drug in combination with creasote and chloroform.

Dr. Carasso claims remarkable results in his treatment of cases of phthisis with the oil of peppermint : Not only were cases cured in the first stages of the malady, but even the more advanced stages, where cavities had already formed, were cured. Dr. Carasso states that if there is fever associated with this condition, it will disappear in a few days under this treatment. He ends by citing no less than thirty-nine cases of phthisis pulmonalis in which these remarkable results were obtained.

It has been already demonstrated by Braddon that the oil of peppermint had a bactericidal action, and further, it is a well-established fact that chloroform posesses in a marked degree the same properties as an antiseptic. The writer was induced to give the above treatment a trial in a case of phthisis that was well advanced and had resisted almost every form of modern treatment. The patient had been given creasote in increasing doses in combination with cod liver oil, tonics, etc., without any appreciable change in his condition. For the administration of the oil of peppermint the two following formulæ were prescribed :

℞—Creasoti, . . . . . mxcvi.
Chloroform, . . . . . mxxx.
Olei menthæ pip., . . . mxcvi.
Spiritus vini rect., q. s. ad. fʒvi.—M.
Et fiat mistura,
Sig.—Capiat drachmam unam ter in die, ex pauxillo lactis.

and as an inhalant,.

℞—Creasoti, . . . . . fʒj.
Olei menthæ pip., . . . . fʒij.
Tr. conii., . . . . . fʒij.
Alcohol, . . . . q. s., ad. fʒj.—M.
Sig.—Inhalet gtt x. quarta quaquehora.

Carbolic acid in a somewhat smaller dose or thymol may be substituted for the creasote in this last formula.

In less than one week's time the patient returned and reported remarkable progress in his case since taking the above formulæ. His cough had almost ceased ; the expectoration was diminished to a marked degree ; a sharp pleuritic pain that had troubled him in his right side for some time past, had entirely disappearod. And there was a return of appetite, so that now the patient ate his meals with a relish that he had not experienced for many months. And finally, he was able to resume his occupation as a carpenter, at which he had not worked steadily for eight or nine weeks.

The dose of the oil of peppermint mixture has been increased from one teaspoonful three times daily, to a teaspoonful every four hours, or four times daily. The patient is rapidly improving under the above treatment.

At the present era in medicine the advocates

for new methods of treatment in disease are legion, but their claims for success in nine cases out of ten must be looked upon with suspicion and taken *cum grano salis.* A new drug or a new method of treatment can take rank with the old and classic remedies only when it has been found by repeated experiment or trial to cure, or at least ameliorate, the pathological conditions of the human body for which it has been employed.

Dr. Carasso has claimed great things for the oil of peppermint in phthisis pulmonalis; he cites thirty-nine cases of consumption in all its stages, every one of which have been more or less benefited by this simple drug. And, when we come to think, it has been by tho use of simple drugs that the physicians of the good old times attained success in the treatment in the their cases, for they used remedies that had been tried fer centuries and had been proven by experience and practice to relieve certain pathological conditions, the writer thinks that this simple drug should at least be given a fair trial in order to ascertain fully whether it will effectually combat the invasions of that dread disease, consumption.—*Med. and Surg. Reporter.*

THE VALUE OF CREOSOTE IN GASTRIC FERMENTATION.—Creosote has been so largely used within the last few years in the treatment of bronchial or general pulmonary disease, that many of us have forgotten the valuable results to be obtained by its employment in the treatment of gastro intestinal troubles associated with fermentation. As is well known, the name of the substance is derived from the fact that it was found to prevent decomposition of nitrogenous matter, and that it therefore acted as a distinct antiseptic. There are two classes of cases of indigestion or disorder in the alimentary canal in which creosote is of great value. Aside from those instances of persistent vomiting, where by its local action it often renders us great service, it is also useful in those of fermentation or chronic indigestion in which there are formed large quantities of flatus some time after eating. Whether the distention is caused by the fermentation of starches or the decomposition of nitrogenous materials, a minim or two of creosote half an hour after eating, or immediately after eating, will often help such cases. Another instance in which crosote is of value is in a case of severe acute gastro-intestinal fermentation, which is often manifested, in the more severe cases, by an actual attack of cholera morbus. The administration of creosote in such an instance, not only tends to prevent the vomiting, but to inhibit the production of poisonous products which are developed from the bad food that the patient has been unfortunate enough to take. Here, again, the dose of from one to three minims of creosote well diluted, proves of value. In those instances in which the vomiting is too intense to permit the swallowing of much liquid, it may be administered in the dose of from one-half to one minim in a tablespoonful of water, milk, or brandy, a few drops of this mixture being given at a time. Notwithstanding the laudatory statements which have been made as to the value of thymol, naphthaline, and other gastro-intestinal antiseptics, we believe that creosote is the best one which we can employ, and we doubt, if it is administered carefully, that it is as apt to produce disturbance of the digestion by irritation of the mucous membrane, as some of the more highly praised and more expensive remedies. It is hardly necessary to add that it is important to use the beechwood creosote, and not that derived from the mineral kingdom.—*Therapeutic Gazette.*

A DOCTOR'S TROUBLE.—"My dear fellow," said my doctor to me, "you have no idea what we have to put up with. If I call to see a patient frequently, I am 'trying to run up a bill;' if I don't, 'it is shameful neglect.' If I manage to get to church, and am called out, I hear afterward, 'Working the Bob Sawyer dodge on Sundays, eh, Doctor?' If I am so busy that I cannot go, I am sure to be asked, 'How is it that you doctors are all atheists?' If my wife calls on people, 'it is because she is trying to get patients for me,' but if she doesn't, it is because she is 'too stuck up.' If I cure a patient quickly—get credit, you say? Oh, dear, no!—the patient 'wasn't half as bad as the doctor tried to make out;' but on the other hand, should the case develop serious complications, 'Ah! the doctor never understood the malady; in fact, he was worse when he had been taking the medicine a week than when we called him in.' If I suggest a consultation, it is only because I don't know what is the matter; if I pooh-pooh the idea as unnecessary, I am 'afraid of showing my ignorance.' I am expected to, so to speak, cast a horoscope on a baby's life, and tell its mother what its ailments will be. If I can't do that, I 'cannot possibly know very much.' I am expected to foresee all the 'ills that flesh is heir to,' six months before they come. I once lost a patient whom I had treated for influenza, because I did not foretell an attack of rheumatism which came on three months later. In all cases, if they get worse, the fault lies in the medicine. If I send in my bill, they say, 'He is in a terrible hurry for his money;' if I don't, it is 'so unbusinesslike.' 'But we get well paid?' do you say. My dear sir, if I received payment for one-half I do, I should die from shock."—*Medical Record.*

THINGS WORTH REMEMBERING.—It is authoritatively stated that headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

Ordinarily one woman in eight is sterile, but among women who have fibroids one in three is sterile. (Parvin.)

In facial erysipelas, where you cannot conveniently apply ordinary means, paint the part with a ten per cent. iodoform collodion. (Prof. Gross.)

In posterior displacements of the uterus, always replace the organ before introducing a pessary; the frequent failure of its use is generally due to this cause. (Parvin.)

Where there is a collection of foreign matter, as pus, in the antrim of Higmore, extract the first molar tooth (or more, if necessary), and drain the cavity in this way. (Sajous.)

For specific vaginitis, Prof. Parvin ordered mucilaginous injections and warm hip-baths in the acute stage, followed by injections of $\frac{1}{1000}$ corrosive solutions and tampons of boracic acid and glycerine.

Gelsemium will often do more good in irritable bladder than any other remedy. It is especially adapted to those women of hysterical type troubled by irritability at the neck of the bladder, calling for constant urination.

Without exception, the first symptom of pregnancy is an increased frequency of the desire to micturate.

Rhus aromatica, or the fragrant sumach, which grows all through the Northern States, is strongly recommended for incontinence of urine in atonic states of the bladder. From ten to fifteen drops of the tincture are given three times a day.

Salicylic acid is highly recommended as an application to ringworm. It may be used as an ointment, but is much better as a saturated solution in collodion. One application is often all that is necessary to effect a cure, but it may be repeated if necessary. The pain caused is not usually severe.

Boro-tartrate of potassium is the first remedy for calculus in pelvis of kidney; a weak solution must be used, and for a long time, a strong being detrimental. (Bartholow.)

Drop into urine in a test tube a few drops of the tincture of guaiac, heat it to about 100°, and if it turns pale blue, pus is present in the urine.

Houghton, of Dublin, says that two hours of severe mental labor abstract as much vital strength from the system as a whole day of physical labor.

Unna treats "red nose" with zinc and sulphur ointment externally and ichthyol internally.—*Mass. Med. Jour.*

Peroxide of Hydrogen in Stomatitis.—Boennecken, in a paper on stomatitis (*Deut. med. Woch.*) insists upon the importance of paying attention to the mouth daring acute febrile or wasting disease; stomatitis originating in neglect of attention to the cleanliness of the teeth, gums, etc., may have a serious influence in retarding convalescence. The value of antiseptic applications is generally accepted, but the solutions of chlorate of potassium and permanganate of potassium commonly used are not sufficiently concentrated to have an antiseptic action, especially when the short time they can remain in contact with the mucous membrane is taken into consideration. Moreover, these strong solutions are apt to be painful. Boennecken strongly recommended solution of peroxide of hydrogen; it is not poisonous, does not cause pain, and has an effective antiseptic action even in solutions so weak as two per cent., or even less. He states that by its use fœtor is corrected in a few minutes, and that its continued use was followed by a marked improvement in the condition of the epithelium in twenty-four hours, and complete cure of even severe cases in five or six days. Leo, in the discussion which followed the reading of the paper, stated that he had also obtained very good results, but that in chronic stomatitis a solution stronger than two per cent. acted better. Wolters had found the peroxide in five to ten per cent. solution very useful in mercurial stomatitis. Binz, however, regarded chlorate of potassium as equally effective, and observed that it probably acted in the same way as the peroxide, namely, by liberation of nascent oxygen.—*Brit. Med. Jour.*

Chloride of Ammonia in Renal Disease.—Corrie finds chloride of ammonia an excellent remedy in cystitis. He prescribes ordinarily a No. 1 capsule of Squibb's pulverized purified ammonium chloride, to be taken three or four times in the twenty-four hours, preferably when the stomach is somewhat empty, each dose to be followed immediately by half a goblet or a goblet of pure cold water. The following are some of the conditions in which the drug has been given faithful trial, with most satisfactory results in *every instance:* Cystitis dependent upon stone in the bladder, stricture, hypertrophy of the prostate; deposits of urates, etc.; gonorrhœa (male and female); cystic irritation from uterine disease or menstrual disorders, malarial disease, masturbation, early pregnancy, simple urethritis (traumatic) in newly-married women; cystic and renal sequelæ of *la grippe.* In the majority of cases it was simply surprising to note the rapidity with which the urine was cleared of bladder-mucus, blood-corpuscles, pus-corpuscles, urates, phosphates, etc., the distressing symptoms disappearing therewith; and in no case did the salt occasion any gastric or other disturbance when taken as ordered. No explanatien of the *modus operandi* of the remedy is offered. The capsules are to be filled only as needed for administration, as the salt dissolves the gelatin in a short time.—*Virginia Med. Monthly.*

CONSERVATIVE TREATMENT OF HEMORRHOIDS.—P. Reclus, *Gaz. des Hospitaux*, 1893, No. 35, treats painful hemorrhoids by sitz baths and washings with water at a temperature of about 120°—130°, and believes that their worth is far greater than that of cold baths. Before and after defecation the patient should insert into the anus cotton tampons soaked in a 2 per cent· cocaine solution. As the first operative procedure he recommended dilatation, not the digital, but by means of Trelat's two-bladed speculum. General narcosis is unnecessary. A tampon soaked in a 2 per cent. cocaine solution is placed in the ampulla recti for three or four minutes; then he injects into the sphincter ani itself in different places 1 hypodermic syringeful, dr. j. of a one per cent. cocaine solution, which produces full anæsthesia in a few minutes. The speculum is then introduced and opened to the maximum. The author has used this method in sixty cases with but one troublesome case. All the others were permanently cured. Incontinence never followed, and in only one case was there a relapse. In such cases an operation is the only recourse, either with the knife or scissors. This can be accomplished with local anæsthesia from cocaine. The author has operated with success in thirty cases in this manner, and in only one was there complication, a secondary hemorrhage, which was easily controlled by a deep stitch. He believes that the extirpation should be the last resort, and that the other methods should be used in the order described.—*Am. J. Med. S.*

SORE NIPLES.—Dr. T. E. Teter, in *Omaha Clinic*, says: "If the following sentence, "A sore niple causes great pain when the child nurses," which occurs in a very valuable "System of Obstetrics," was reversed, it would approach my experience with this important disease. I have found great pain when the child nurses is generally followed by inflammation, excoriation, fissure and sometimes mastitis. The pain which is the first symptom of sore nipple, is caused by sudden tension on the lactiferous ducts produced by the child each time it begins to nurse until the nipple is elongated sufficient to fill the child's mouth and to allow it swallow to without losing its hold. There is a constant jerking, with friction between the tongue and nipple. Acting on this theory, I have directed the mother or nurse to manipulate nipple and areolæ between the thumb and two fingers, using vaseline and drawing gently outward for about a minute. The child is then put to the breast and nurses gently, saving the mother that agonizing pain which is generally experienced in a case of short nipples. I have yet to hear of a case where the pain has not been relieved by this method, and I have seen deep fissures heal in a few days after this relief from pain. If mothers were treated for retracted nipples immediately after confinement, there would be few cases of sore nipples; and as long as the women of the present day will not recognize the evil effects of the corset, there will exist this condition of short nipples.—*New Eng. Med. Monthly.*

DEATH AS IT IS.—Perhaps the most common mistake of the lay mind is the association of the dramatic with the conception of death. Nothing is more common than to hear from the pulpit, pictures in words of excitement, of alarm, of terror, of the deathbeds of those who have not lived religious lives; yet, as a rule, if these pictures are supposed to be those of the unfortunates at the moment of death, they are utterly false. In point of fact, ninety-nine of every hundred human beings are unconscious for several hours before death comes to them; all the majesty of intellect, the tender beauty of thought or sympathy or charity, the very love for those for whom love has filled all waking thoughts, disappear. As a little baby just born into the world is but a little animal, so the sage, the philosopher, the hero, the statesman, he whose thoughts or deeds have writ themselves large in the history of the world, become but dying animals at the last. A merciful unconsciousness sets in, as the mysterious force we call life slowly takes leave of its last citadel, the heart, and what is, has become what was. This is death! *Cgrus Edson, in North American Review.*

CHRONIC BRONCHITIS.—The following is a formula of the late Dr. Wm. Thompson, who died several years ago, at Lazaretto, Philadelphia, of yellow fever:

℞—Fl. ext. tarax, . . . . . .
Fl. ext. rhei, . . . . . .
Syr. senega, . . . . . .
Tinct. tolulan, . . . . . āā ʒ ss.
Sod. bicarbonat, . . . . . ʒ j.—M.

Dr. Thompson prescribed this for a patient who had chronic bronchitis, acid dyspepsia, etc., with good effect, in doses of one teaspoonful three or four times daily.—*Med. and Surg. Rep.*

THE TREATMENT OF VULVAR VEGETATIONS BY PURE CARBOLIC ACID.—Derville, of Lille, cured a case of vulvar vegetations, covering both the anus and the vulva, and reaching the size of a man's fist, by local washing with pure carbolic acid. The whole surface of the vegetations was painted with the pure acid; this application was repeated about every fourth or eighth day. The treatment occasioned no pain, but frequently caused erythema, vesiculation, and excoriation of the surrounding parts. This is prevented by the application of vaseline to the healthy skin.—*New Eng. Med. Monthly.*

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, APRIL, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## THE INCH-AND-A-HALF INCISION AND WEEK-AND-A-HALF CONFINEMENT IN APPENDICITIS.

Dr. Robert T. Morris, in a paper read before the N. Y. State Medical Society, under this title, stated that we have recently learned four principal things relative to appendicitis, and that he was now asking fhe members of the profession to accept a fifth point.

Firstly, we had learned that appendicitis was of such common occurrence that every general practitioner had many cases in his clientele. Secondly, that it was not generally known that multitudinous forms of abdominal inflammation were symptomatic of appendicitis. Thirdly, statistics showed that late operation did not give us much encouragement. Fourthly, that it was known that early operation in the interval between attacks was an operation with trifling mortality, indeed, in his personal experience with none at all, but that there was danger of ventral hernia resulting from the operation if a long incision were made.

The fifth point was this: We do not need to make a long incision in appendicitis cases that are operated upon at the outset of the inflammation, or interval cases as a rule; and there will be no hernias and no permanent scars if the surgeon will accept as standard the author's abdominal incision which is one inch and a-half in length, the divided structures of the abdominal wall being united separately with fine cat-gut afterward. The author buries the stump of the appendix with Lembert sutures. His abdominal scar disappears entirely, so that at the end of a few months it cannot be seen. His death-rate has been nothing at all in cases without pus, and physicians upon whom he depended for cases, were now ashamed to have him find pus in the cases to which they had called him. He did not know just where to look for danger in any of the cases operated upon at the time of his choice, but called the attention of members of the Society to one danger in the use of carbonate of sodium for reversing peristalsis of the bowel. A note was at present going the rounds of the press to the effect that carbonate of sodium was successful in reversing peristalsis, but the author in experimenting with rabbits accidentally discovered that carbonate of sodium on touching the ileum, regularly produced intussusception in less than forty-five seconds. The mechanism of the intussusception consisted in spasms of a belt of circular muscular fibres of the ileum, and this portion was then quickly invaginated by the peristaltic action of the longitudinal muscular fibres. The author now uses chloride of sodium for reversing peristalsis in all of his operations.

He stated that there was strong opposition to his plan of removing an infected appendix just as soon as it was discovered, but this opposition must fade away as soon as physicians generally could benefit from his experience, which was to the effect that appendicitis was an infectious exudative inflammation which did not disappear on disappearance of the symptoms. He had removed a large number of appendices from patients who felt perfectly well, but who could not obtain life insurance, or who feared recurrence, having had a previous attack of appendicitis. In all of these cases he found destructive processes in progress. Some times there was slowly progressing necrosis of the lymphoid tissue of the appendix; sometimes he had found tuberculosis or carcinoma insidiously beginning at the seat of the old inflammation, sometimes adventitious bands set snares for the bowel, and he had discovered that proliferating endarteritis which must eventually lead to gangrene of the appendix, was common in very mild chronic cases. He had found proliferating endarteritis producing slow occlusion of the arteries of the appendix in three mild chronic cases in succession.

The author stated that surgeons were laughed

at occasionally because they found normal appendices at operation for supposed appendicitis, but he did not believe that proper examination was made of the specimens. He had removed two or three appendices which were apparently perfectly normal, but the patient's symptoms all stopped after the operation, and when cultures of bacteria and microscopic sections had been made from these specimens, it was found that they had been dangerously infected. The mucosa and adenoid tissue were undergoing destruction by the colon bacillus.

The author stated that when his inch and a-half abdominal incision was employed in removal of infected appendices, patients left the hospital at the end of a week and a-half. If an incision two inches long were made the patient would not be ready to leave until fourteen days after the operation, and if the incision were from two and one-half to four inches long eighteen days would be required for repair. Consequently he had adopted as standard the inch and a-half incision and week and a-half confinement plan, which left no hernia and an evanescent scar.

By operating immediately in acute cases, he did not mean on the following day, but on the *following hour*, which is a point well worthy of the most careful consideration by all physicians.

Physicians who do not accept this plan must lose a few cases that they do not expect to lose, and they must let many patients suffer tediously and unnecessarily, but there will not be much further opposition, because physicians are only too glad to do the very best thing as soon as they have learned what it is.

The insurance companies would not insure a patient who had ever had appendicitis, and whose appendix still remained, if they were to note the character of the adventitious peritoneal bands which form in these cases, and if they observed the persistence of appendicitis and of supplementary diseases in the appendices of the patients who were thought to be quite well.

---

FOR morphinism, Kochs, *Ther. Monatsh.*, recommends the subcutaneous injection twice daily of atropin, gr. $\frac{1}{300}$, with which in his own practice he conjoined morphin, gr. $\frac{1}{4}$.

## ETHER ANÆSTHESIA IN LONDON.

The *Medical Press and Circular* has had a series of reports on the anæsthetic procedures in several hospitals of London.

King's College Hospital and the Royal Free Hospital are not free users of ether; the former relies on chloroform, while the latter is partial to the A. C. E. mixture.

In the case of nine other hospitals, the anæsthetists administer ether in the larger proportion of cases. At the London Hospital a very noticeable change has taken place in this regard; ether is the anæsthetic chiefly used, being administered twice as frequently as chloroform.

The anæsthetist of St. George's Hospital shuns the use of chloroform, "unless there is some good and sufficient reason to give the coroner in case of accident," although he considers the substance safe in the hands of a competent operator.

Ether is by far the most popular anæsthetic at the Charing Cross Hospital, being used in about seventy per cent. of the cases.

Chloroform has the preference in operations upon the mouth, tongue, etc, or where the use of ether is contraindicated by the existence of some pulmonary complication.

Dr. Hewitt, at the London Hospital, prefers chloroform in cases where bronchitis or emphysema exists, and a majority of anæsthetists use it for children, elderly persons, and those who have bronchial trouble.

Dr. Bourns, of the Westminster Hospital, however, does not refrain from the use of ether in elderly people, since he believes the fear of its use in such cases has been without foundation, and that where lung trouble has followed an operation, it has been caused more by exposure of the chest than to inhalation of the vapor of ether.

Nearly all the out-patient departments use nitrous oxide, and so do the anæsthetists of the hospitals when minor operations are to be performed. In some cases chloroform is substituted for ether, if the patient under the influence of the latter evinces a tendency to vomiting or bronchial irritation; after the ether has been withheld for a while it may be administered again.

At St. Mary's Hospital, ether is used first in patients who are badly nourished and run down

from excesses; when the period of excitement has been reached, chloroform is given in place of the ether; afterward, when the patient is quiet and breathing regularly, the use of ether may be resumed.

The A. C. E. mixture mentioned above, although it originated in London, has a better reputation in the United States than at home. The proportions of the mixture are, by measure: alcohol one part, chloroform two parts, and ether three parts, its constituents to be of the very finest quality.

This was used by Dr. Harley for several years in a quiet way, but in 1864 a committee of the Royal Medico-Chirurgical Society gave it prominent mention in their report on anæsthetics.

The majority of London anæsthetists are particular to use the ether in as fresh a condition as possible, and preference is given to the use of an inhaler. The Clover inhaler is largely used, though Ormsby's and Junker's have their adherents.

## CLINICAL NOTE ON CODEIA.

Dr. Braithwaite writes the following clinical note in the *Lancet;* and, considering the immense importance of finding a suitable substitute for morphia, we append his remarks *in toto:*

Invaluable as opium and its alkaloid morphia are, they, however, have several disadvantages, some of which can be avoided by the use of codeia, which has peculiarities of its own worthy of remark. Many patients cannot take opium or morphia on account of the sickness which follows the next day. Codeia rarely produces sickness, and after taking, say, two-thirds of a grain in the evening of one day, there is freedom from any effects whatever after a cup of coffee the next morning. This is a very important practical point, provided the codeia answers the same end as the opium. The former drug seems to have a special action upon the nerves of the larynx; hence it relieves tickling cough better than any ordinary form of opium. Two-thirds of a grain may be given half an hour before bedtime.

It was in my own case that I first began to use codeia. For more than twenty years, usually once every winter, I have been seized with a spasmodic cough just before going to sleep, which becomes so severe that I am compelled to get up and sit by the fire. After an hour or two I return to bed and am free from the cough till the next winter. In other respects I enjoy good health. Once, and once only, the affection returned on two or three consecutive nights. There is no expectoration, and the affection is as much a laryngeal spasm as a cough. The cold which originates this is usually trivial. If I take opium in any form I am sick the next day, and if I take chloral I have a headache and feel unfit for work. Many years ago I found that one grain of codeia taken abou two hours before bedtime, absolutely stops the attack and leaves no unpleasant effect the next morning, As I have some warning when an attack is impending, I am now able to defy the cough.

In cases of vomiting from almost any cause, quarter-grain doses of codeia in an effervescing mixture, usually answer exceedingly well, or half a grain may be taken at rather longer intervals. In the milder forms of diarrhœa two-thirds to one grain of the drug usually answer most satisfactorily, and there are no unpleasant after-effects. If, however, there is great pain the analgesic effect of codeia may not be sufficient, and opium itself, or morphia hypodermically, may be required. There is a curious form of diarrhœa met with in elderly women, the etiology of which I do not quite understand. Before the proper time to get up, and perhaps once or twice during dressing there occurs a mild form of diarrhœa. As this continues year after year it gradually impairs health. I find it best treated by half a grain of codeia, or even two-thirds of a grain, about four o'clock in the morning. It should be given in the form of a pill. Sometimes chronic neuroses may be cured by breaking the continuity of the pain, for which purpose I have found this drug peculiarly suited. It is better in such cases to prescribe it in a rather large dose at long intervals, as two-thirds of a grain or a grain every twenty-four hours. This need not prevent other treatment being adopted if necessary. Codeia will not entirely take the place of morphia, for it is not so powerful. It will not relieve an intense pain, but it has distinctly its own sphere of action. It is usually given in the form of pills, as it is so difficult to keep in solution. This answers very well in diabetes, in which disease, as is well known, it is invaluable. In many cases, however, a solution is

decidedly preferable, and if it is dissolved by heat and a little spirit added it keeps very well except in cold weather, when it should be kept in a room with a fire. A small quantity only should be prepared at a time.

HYDRASTININE IN UTERINE HÆMORRHAGE.—Gottschalk, *Brooklyn Med. Journal*, says hydrastinine may be employed:

1. First of all, in those uterine hæmorrhages which are traceable to a pronounced congestion of the uterus. To these belong, above all, the often very profuse menorrhagias of spinsters, in whom there is no pathological change in the condition of the genitals. In some of these cases it is possible to obtain a permanent result, so that even after discontinuing the remedy the menstrual flow remains smaller.

2. Also in hæmorrhages which have their pathological and anatomical cause in endometritis, hydrastinine will lesson the quantity of blood; but here, according to Gottschalk's experience, the action is only palliative, not being sufficient alone to cure the local cause of the trouble.

3. For prophylactic or intermenstrual use, hydrastinine is useful before or during the first returning profuse menstruation after an abrasion of the uterine mucosa. It is well known that this menstruation, occurring after six weeks, is often very profuse. In the very cases where there was a great loss of blood before the operation, it is of great importance to prevent further profuse hæmorrhage. This is possible if the treatment with hydrastinine is begun several days before the expected menstruation, and, if necessary, continued during the duration of the menstruation.

4. Menorrhagias cased by retroflexio uteri are best treated by correction of the malposition; but for cases of fixed retroflexion, where the reposition is not yet possible, hydrastinine is a commendable remedy.

5. Secondly, uterine hæmorrhages, *i. e.*, those caused by a change of the adnexa and their surroundings—offer a large field for the successful use of hydrastinine. To these belong the menorrhagia and metrorrhagia with pyosalpinx, oophoritis, ovarian tumors and exudations. Of course the cause of the trouble is not influenced by the remedy.

6. Climacteric menorrhagias are much diminished by a faithfully carried out hydrastinine treatment.

ETHERIZATION OF INCARCERATED HERNIAS.—Since 1891 Gussenbauer has successfully made use of Finklestein's method of treating incarcerated hernia, *Therap. Monatshefte*. This consists in dropping ether (one to two tablespoonfuls every quarter of an hour) upon the hernial ring and the tumor, the skin over these places having been previously anointed with vaseline to prevent irritation from the ether. This is employed from one to three hours in connection with elevation of the pelvis and gentle taxis. Among 135 cases treated during this period this treatment was indicated in but 31, in the others owing to the long duration of the strangulation and the violent symptoms (marked tympanites, impending or developing gangrene), herniotomy was resorted to. Of these 31 cases 25 were treated by the ether method, the remainder by simple pelvic elevation and application of ice. The application of ether was successful in 20 cases (16 inguinal, 1 parumbilical, and 3 crural hernias), while in five cases it was necessary to subsequently perform herniotomy. In three cases spontaneous reduction occurred without taxis, one patient reduced the hernia himself; in the other cases reduction was effected with the aid of gentle taxis, usually in two to three hours. Finklestein's method acts best if employed as soon after the occurrence of incarceration as possible, and is especially adapted for the use of the country practitioner.

POTASSIUM PERMANGANATE AS AN ANTIDOTE TO OPIUM AND ITS ALKALOIDS.—It is related that a physician of New York, *Med. News*, recently demonstrated, in the presence of a number of colleagues, in his own person the efficacy of potassium permanganate as an antidote to morphine. He is said to have swallowed three grains of morphine sulphate in solution, and immediately afterward four grains of potassium permanganate dissolved in four ounces of water, without the development of the usual effects of morphine. It is maintained that morphine, or any of the salts of opium, is immediately rendered inert by contact with potassium permanganate, the one drug seeming to have a special affinity for the other, the one being a re-

ducing agent, the other an oxidizing agent. As the antidotal action is chemic rather than physiologic, it is essential that the permanganate be administered soon after the ingestion of the opiate. It was first believed that the permanganate is without influence after the opiate has been absorbed, but experiments upon animals seem to indicate that if the former is introduced into the veins at not too great an interval after the ingestion or injection of the latter an antidotal influence is also exercised.

Modern Pathological Bubbles. — Says *The New Albany Herald:*—there was a coal-tar bubble, a most promising one, brilliant with all the anilin colors; and it swelled and swelled until it filled the whole medical horizon. For thousands of years physicians had cried out in agony: "If we could only find some remedy to still this raging fire of fever that is consuming our patients!" Now, in the fullness of time, the greatest remedy had been discovered—the enthusiasm spread like wildfire—even cool heads became heated—King Cureall had descended in our midst. Meantime, while the whole medical profession was chasing madly this gay bubble, a patient, plodding German was reducing the mortality of typhoid fever from 25 to 2½ per cent. by the use of cold baths, and treating 356 cases in his private practice with but one death. Then skeptics arose who questioned the divinity of King Cureall. One, bolder than the others, said: "What is this fever that you seem so anxious to reduce? What do you expect to accomplish by reducing it?" And slowly the huge bubble gravitated earthward. Even as we write, another bubble, composed of animal extracts, rises above the horizon. *Sunt fuerunt, vel fuere.*

Danger in Nitrous Oxide Gas.—The importance to dentists of being protected by the presence of a medical man, *Med. Times*, when nitrous-oxide gas is being administered, was strikingly shown on Monday last, at the dental surgery of Mr. Creasy, Aldersgate Street, E. C. A young man, about twenty-five years of age, called at Mr. Creasy's surgery to have a tooth extracted. The dentist sent for his neighbour, Dr. Adams, to administer nitrous-oxide gas. Apparently the young man took the gas well, the tooth was extracted, but to the astonishment of the doctor and the dentist, his breathing failed, and in spite of all that could be done the patient died. An inquest was held, and the usual verdict, exonerating the doctor and dentist from blame, was given. Dr. Adams stated to the coroner and jury that he had administered nitrous-oxide gas to some 30,000 or 40,000 patients. But such accidents will happen at times to the most careful and experienced.

Paraldehyd Habit.—In the *Edinburgh Med. Jour.* is reported the case of a man, aged 65, admitted as a voluntary patient to the Royal Asylum, Edinburgh, November 23rd, 1892, who was addicted to inordinate use of paraldehyd. Two years before, he began the use of the drug for the relief of insomnia, from which he had long suffered; and the dose was gradually increased until shortly before he entered the asylum he was taking sixteen ounces per week. He had lost twenty-eight pounds in weight, and was so feeble he required to be fed like a child. The action of the heart was weak and irregular, the appetite abnormally large; and he likewise suffered from hallucinations of sight and hearing, and from delusions of unpleasant character. He proved a most troublesome patient, but was finally discharged in good health, on the 21st of February of the current year.

Chloral Hydrate in Labor.—Garner, *Lancet*, in an article upon the efficacy of chloral hydrate in labor, states that it has a great effect in assisting the dilatation of the os uteri and relaxing the rigidity of the perineum. He described the cases of three primiparæ, in which he had used the drug. No post partum hæmorrhage followed, nor was there any delay or difficulty in the expulsion of the placenta. He thinks that the chloral might take the place of chloroform in many cases, if given in a small repeated dose during the long and tedious labor of the primipara. The writer stated that it did not seem to diminish the expulsive power of the pains, as have often been noticed in chloroform cases. Dr. Garner recommends that the chloral might be further tried in place of chloroform inhalation in primiparæ, in order to relieve the rigid perineum and so to avoid having to use forceps.

A New Way to Execute Criminals.—A bill has been introduced in the Legislature of Ohio,

*Med. Rev.*, opposing hanging and providing that all murderers sentenced to death shall be put out of the way by means of anæsthetics which are to be administered under the supervision of a board of physicians and scientists. The condemned man having been placed in a painless sleep, the scientists are to be permitted to take the top of his skull off and watch the actions of the brain and lay bare his heart and other organs and study life there. The author of the bill is a physician and argues that its passage would give scientists an opportunity to study the currents of life as they have never been studied before, and would undoubtedly result in the most wonderful discoveries to the benefit of humanity.

HIGHER MEDICAL EDUCATION.—In pursuance of the policy recently announced in the resolution to be presented to the American Medical College Association, the trustees and faculty of Rush Medical College have decided to require four years attendance at college, from students who begin the study of medicine this year, with a view to graduation in 1898; however, those who have already studied medicine one year or more with a preceptor, so that the four years of study, already required, will be completed before July, 1897, may graduate after three courses of lectures as heretofore. To encourage proper preliminary study, graduates in Arts and Sciences from high grade colleges, and graduates in Pharmacy and Dentistry, from colleges requiring a proper amount of study, two full courses of lectures will, until further notice, be allowed to graduate after an attendance on only three courses of lectures.

A NEW REACTION FOR BILIARY PIGMENTS IN THE URINE.—Dr. H. Rosin prepares, *Wien. Med. Presse*, his test as follows: a solution, the color of port wine, is made with the official tincture of iodine and alcohol. This color can be obtained accurately by adding 2 drops of iodine tincture to a test tube filled to ¼ its capacity with alcohol. The solution thus prepared is carefully poured over the urine to be examined; immediately, or after a minute, there appears at the point of contact of the two solutions a grass-green coloration which often persists for hours. Should the urine contain no bile pigments, there is at the point of contact a yellowish discoloration. The test just described has been used at the third medical clinic in Berlin, and is pronounced the simplest and most sensitive reagent for bile pigments in the urine.

ANAL FISSURE.—Allingham strongly advocates the local use of the following ointment, *Doctor's Weekly*:

℞—Hydrarg. subchlor., . . . gr. iv.
Pulv. opii,
Ext. belladonnæ, . . . āā gr. ij.
Ung. sambuc., . . . . . ʒ j.—M.

Sig.—To be applied frequently.

He states that he has had many cures with this ointment alone. Another excellent ointment, recommended by the same authority, is:—

℞—Plumb. acetatis,
Zinci oxidi, . . . . āā gr. x.
Pulv. calaminæ, . . . . gr. xx.
Adipis benzoinat., . . . ʒ ss.—M.

An ointment of the oxide of mercury, 30 grains to the ounce, has cured many cases.

WHAT IS A BLUSH?—It seems that, unlike an osculatory demonstration, a blush can be scientifically defined, *Med. Age.* A Cincinnati physician attempts it as follows:—"A blush is a temporary erythema and calorific effulgence of the physiognomy, ætiologized by the perceptiveness of the sensorium when in a predicament of unequilibrity from a sense of shame, anger, or other cause, eventuating in a paresis of the vaso-motor nervous filaments of the facial capillaries, whereby, being divested of their elasticity, they are suffused with radiance emanating from an intimidated præcordia."

ELECTRICITY IN AMENORRHŒA.—Dr. D. Labbé reports three cases, *Journal de Médicine de Paris*, treated with the negative pole (cathode) of a constant current. The positive electrode is applied on the lower part of the abdomen in the linea alba. Applications did not exceed 5 minutes at a time. The intensity of the current was never more than 50 milliamperes. Instruments used should be made aseptic and in all cases the operator should convince himself that the uterus is empty.

EPILEPSY.—Paul Flechsig, *Neurol. Centra.*, treats epilepsy first with small doses of opium

gradually increased, for six weeks, and withdraws it, and substitutes a large dose of bromide of potassium. After two months, the latter is reduced by degrees until small doses are given at regular intervals. The opium treatment seems to prepare the way for the bromide, and to intensify its effect. He reports success in many cases, and the phenomenal results in one.

An Effective Depilatory.—Butte, *Monatshefte für Practische Dermatologie; Med. Age*, recommends iodine collodium, which for three or four consecutive days is spread rather thickly upon the respective spots. When the collodium skin is removed the hairs will be found adhering to the under side. Especially adapted is said to be iodine collodium of the following composition:

| | |
|---|---|
| Alcohol | 12.0 |
| Iodine | 0.75 |
| Collodium | 35.0 |
| Oil turpentine | 1.5 |
| Castor oil | 2.0 |

Chloroform as a Tænicide.— Chloroform, which was first employed by the French, *Lancet Clinic*, for the above purpose, was found to be a very effectual remedy when given in the University Policlinic, of Berlin. It was administered as follows:

℞—Chloroform, . . . . gms. 4.
Ol. tiglii, . . . . . gtt. 1.
Glycerine, . . . . . gms. 30.—M.
S.—To be taken in one dose.

Employed in the treatment of thirty-eight cases, but one failure was recorded. No ill effects were observed.

Anti-Pruritic Oil.—Bronson, of New York, has employed the following, *Jour. Am. Med. Assoc.*, both in local and so-called general forms of pruritus. The oil should not be applied too frequently:

℞—Carbolic acid, . . . . . ʒ i-ii.
Liquor potassæ, . . . . . ʒ i.
Ol. lini., . . . . . ℥ i.
Sig.—Shake before using. A drop or two of oil of bergamot may be added to disguise the odor of the linseed oil.

Leucorrhœa.—W. F. W., *Times and Reg.*, says in answer to a correspondent, of untractable leucorrhœa: Wash out the vagina daily with Marchand's peroxide of hydrogen, an ounce to a pint of water; then inject half an ounce of fluid petrolatum, with five grains each of europhen and aristol, and apply a cotton tampon to retain the oil. Continue for a week. If not cured, inject the oil into the uterus through a long-nosed syringe. This will almost surely cure these very obstinate cases.

Bronchial Asthma, *Clin. Jour.*:

℞—Pot. iodidi, . . . . . gr. xxx.
Pot. chlor., . . . . . ℥ j.
Tr. lobeliæ, . . . . . ♏ xxx
Syrup. codeiæ, . . . . . ʒ j.
Aq. destil., . . . ad. ℥ vj.—M.
Ft. mist. Sig: One teaspoonful to be taken every hour, until relief is obtained.

A Narrow Escape from Burial Alive.—A town councillor of Burton-on-Trent in England, *Boston. Med. and Surg. Jour.*, had a narrow escape from burial alive last week. At the very last moment, during the committal service in the cemetery, a friend detected what he thought was a sign of life. On examination the man was found to be still breathing, and was carried home.

Creasote Eructations.—To prevent the unpleasant eructations which sometimes follow the use of creasote, it is said that dilute hydrochloric acid in four-drop doses, taken immediately after each portion of the creasote is ingested, is an almost specific.

Salicylic Acid is highly recommended as an application to ring-worm, *Hosp. Gaz.* It may be used as an ointment, but is much better as a saturated solution in collodion. One application is often all that is necessary to affect a cure, but it may be repeated if necessary. The pain caused is not usually severe.

Epsom Salts for the Pain of Burns.—Dr. N. F. Howard writes to the *Atlanta Med. and Surg. Journal* that he has had phenomenal success in relieving the pain of burns by immersing the injured member in a strong solution of mag. sulph. in water, vi ℥, one pound, to two quarts of water.

American Medical Association. — Elaborate arrangements are being made by the committee, relative to the next meeting of the American

Medical Association which is to be held in San Francisco, June 5th. Hotels and lodging houses are quoting special rates, prices ranging from 50 cents to $5 per day.

EFFECT OF RHUBARB ON THE URINE.—According to Jung if the urine of a healthy person who has been taking rhubarb be tested with bismuth, *Druggists' Circ.*, the same brown coloration will be produced as if sugar were present. Inquiry should be therefore made respecting the use of the first named drug, in cases where it might otherwise lead to a wrong diagnosis. This is of special interest to medical examiners of life insurance.

THE DOCTOR.—

"The paths of pain are thine. Go forth
With patience, trust, and hope;
The sufferings of a sin-sick earth
Shall give thee ample scope.
Beside the unveiled mysteries
Of life and death go stand,
With guarded lip and reverent eyes,
And pure of heart and hand."—*Whittier.*

CONCEPTIONS just previous to the menstrual period result in boys; Dr. George Abbott, *Med. Rec.*, those just after, in girls. Such is the conclusion from many observed, notably among the last.

DR. BOARDMAN REED, says, *N. Y. Med. Times*, that ten to thirty drops of extract of cimicifuga after meals, rarely fail to effect a cure of seminal emissions.

SIGNIFICANCE OF INGUINAL PAIN.—Doctor Montgomery declares, *Med. Age*, that pain in the inguinal region occurring before menstruation is evidence of a diseased condition of the ovaries.

## Books and Pamphlets.

VENEREAL MEMORANDA; a Manual for the Student and Practitioner. By P. A. Morrow, A.M., M.D. New York: William Wood & Co. Toronto: Carveth & Co. 1894.

This, the second edition, has been modified by the additions which have been made to our knowledge of venereal diseases under the *rôle* played by micro-organism, in these, as in so many other diseases. A handy little book for reference.

THE OFFICE AND DUTIES OF CORONERS IN ONTARIO and the other Provinces and the Territories of Canada and in Newfoundland. Third edition. By W. F. A. Boys, LL.B., Junior Judge, Co. of Simcoe. Published by the Carswell Co., Toronto. 1893.

As the second edition of this standard work has long been out of print, the appearance of a new and greatly extended one will be welcomed both by the medical and by the legal profession of this country. It will be found to be a reliable guide for those who are charged with the responsible duty of investigating sudden and suspicious deaths, and its study by physicians, who at any time may be called upon to give medical evidence, can be safely advised. The press work and binding are creditable to the publishers, and the work is sold at a reasonable price.

LECTURES ON SURGICAL DISORDERS OF THE URINARY ORGANS. By Reginald Harrison, F.R.C.S. Fourth edition. London: J. & A. Churchill. 1893. Toronto: Carveth & Co.

The author's name is a sufficient guarantee as to the value of this work. As is well-known, the original work was made up of successive courses of lectures, given at the Liverpool Royal Infirmary and at Victoria University.

The present edition has been thoroughly revised and brought up to date. It includes the substance of the Lettsomian lectures of 1888, as well as the Hunterian lectures at the Royal College of Surgeons of 1891. The book is beautifully printed. From a careful perusal of this work, we can safely say that it is a classic on the subjects treated. The style of the author is simple, clear and concise.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third series. Vol. XV. 1893.

MANUAL FOR BOARDS OF HEALTH AND HEALTH OFFICERS. By Lewis Balch, M.D., Ph.D Albany: Banks & Bros.

PUBLIC SCHOOL PHYSIOLOGY AND TEMPERANCE. By William Nattress, M.D., M.R.C.S. Eng. Toronto: William Briggs. 1894.

MECHANICAL AIDS IN THE TREATMENT OF CHRONIC FORMS OF DISEASE. By Geo. H. Taylor, M.D. New York: Geo. W. Rogers. 1893.

REPORTS OF THE BUREAU OF STATISTICS OF LABOR OF THE STATE OF NEW YORK. Parts I. and II. 1891; Part I. 1892. Albany: James B. Lyon, State Printer.

# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.


## Original Communications.

### ON THE PHYSICAL CAUSES OF SEXUAL DEBILITY IN THE MALE, AS DISTINGUISHED FROM THE PSYCHICAL CAUSES.*

BY F. R. STRUGIS, M.D. NEW YORK.

Until within comparatively recent years, it was the custom among surgeons, when consulted by patients suffering from sexual debility, to refer the causes entirely to a disturbed condition of the mind, overlooking altogether the possibility that there might be some physical cause to account for the symptoms—symptoms which undoubtedly, in many cases, are conveyed through the nervous system, but which have not their seat alone in either nervous debility or in nervous depression.

Before calling your attention to the physical causes which I think underlie a large majority, if not all cases of sexual debility, I shall ask you first, to consider with me the symptoms for which patients consult a surgeon, under such conditions. There are two points which enter into all the symptoms that I have heard made by patients who suffer from this cause. One is the imperfection of erections, sometimes their entire absence; and secondly, the prematureness of the emissions, followed immediately by a subsidence of the erection, supposing this function to have been perfectly normal at the start. Associated with this latter condition, there may also be an entire lack of emission, or else if the emission takes place, the amount ejected is very small, and if examined under the microscope, is oftentimes found devoid, or but imperfectly endowed with spermatozooa, constituting the condition of affairs which is known as azo-ospermism.

The former may be considered as the earlier stage, which tends towards the development of the second; the first point noticed by the patient being imperfect erection, associated with premature emissions and followed by an absence of erection. Since the introduction of the endoscope into urethral surgery, it has been possible to examine the urethra, to see, if there were any pathological conditions in this canal, which were either associated with, or perhaps caused, this condition of affairs; but even before the introduction of this useful instrument, the older surgeons recognized the fact, that these symptoms occur most frequently in patients who had been persistent masturbators, and in these, upon examination with sounds or bougies, a stricture, more or less definite, was found in certain portions of the urethral canal, and some went even beyond this, ascribing a hyperæsthetic condition of the canal as possibly one of the causes, or at any rate, one of the concomitants of this condition of affairs. This is exemplified by the use which the older surgeons made of the instrument known as Lallemand's "porte-castique" which they used to cauterize the deeper portion of the urethra. But although the principle was perfectly correct, the application of it was defective, inasmuch, as most of the work was done entirely in the dark; portions of the canal were cauterized, which were not the seat of the disease, and the instrument, being at best a rough and cruel one, oftentimes produced laceration of the mucous membrane, with profuse hæmorrhage. The dangers resulting from its use finally led to its abandonment. But with the endoscope, we are now able to see the whole length of the canal, and to note those portions of the urethra which are normal, and those which are not. Since the days when Desormeaux and Cruse introduced their instrument for the examination of the urethra to the profession, the endoscope has been materially modified, in so much as its length and its capacity for illumination were concerned. The older instruments were long, and it was impossible to thoroughly illuminate the deeper portion of the urethra with them. The present instrument is short, and by telescoping, the anterior and pendulous portion of the penis, may be passed as far as the neck of the bladder, and its shortness allow of better and more perfect illumination. This is derived in a two-fold way; by gaslight, kerosene or the electric lamp, any one of which methods gives

*Read before the New York State Medical Society, February, 1894.

a perfect and complete illumination of the canal, and the applications may be made directly to these portions of the urethra which are seen to be the seat of disease.

The causes which I have found playing a most frequent part to this condition of affairs, naming them in the order of their frequency, are:—

1. Urethral hyperæsthesia.
2. Prostatic hyperæsthesia.
3. Stricture.
4. Varicoceles.
5. Neuralgia of the testis.
6. Tubercular affections of the urethra.
7. Syphillis.
8. Gonorrhœa.

Hyperæsthesia of the urethra and stricture may be included together as one single cause, for in many instances the one is more or less associated with the other; and to this point I shall call your attention more fully further on, when I come to discuss the question of stricture separately. Upon examining patients suffering with this form of disease, I have been frequently impressed with the fact, that there were two points in the canal which were most likely to be affected, to wit, one from two and a half to three inches down; the other at five and a half to six, and these two points were nearly always the seat of congestion more or less pronounced, with or without patches of granular material, and when the examination was made with a bulbous bougie, which is the instrument I use at the commencement of the examination, I have always found an obstruction to the passage of the instrument; an obstruction, however, which nearly always gives way after a few moments' delay. Should the obstruction, however, be obstinate, I then change from the bulbous bougie to the use of the steel sound, of a size which will correspond nearly as possible to the size of the meatus, and in nearly all these instances I have found that where the bulbous bougie was arrested, the sound would go through, showing that there was a spasmodic condition which produced a contraction rather than an organized material blocking up the way. In examining with the endoscope I have found that this condition was associated with a puffiness of the mucous membrane of the urethra, which would admit the passage of the endoscope, and beyond this puffiness the congested and inflamed portion of the mucous membrane was seated. It is very seldom, indeed, that there is any discharge from the urethra, and if present, it is nearly always thin, mucous and sticky. The same conditions obtain deeper down in the prostatic portion; the congestion and inflammation are more pronounced there than they are in the portions anterior to this part of the canal; and I have furthermore found that this portion of the canal does not yield to treatment so readily as when the congestion is situated about the peno-scrotal angle or the bulbous urethra.

Many eminent surgeons have considered that urethral stricture is induced by the habit of masturbation. If by stricture we understand any and every impediment which occurs to the passage of a sound, then, perhaps, their statement is correct, but if we consider stricture merely as those obstructions in the canal due to an infiltration beneath the mucous membrane, blocking up the lumen of the canal and preventing the passage of sounds, then I think some modification must be made of the statement that masturbation produces stricture, and particularly so if we consider for one moment the disproportion that exists between the number of males who at one time or other of their life have masturbated and the number of strictures which occur, I think we will recognize that it is too sweeping an assertion to make, that the one is caused by the other. If, however, we admit that there may be spasmodic contractions in the canal induced by some point of irritation in the urethra, then we shall modify this statement by saying that masturbation may produce a hyperaesthetic condition of the canal which leads to temporary and spasmodic contractions, but not to true stricture, and I have, in a pretty fairly large experience with these cases, come myself to that conclusion, for after the local treatment has been pursued, the puffiness and temporary obstruction in the canal disappear, the hyperæsthesia and inflammation subside, and the canal returns to a more or less normal condition, and with it the symptoms for which the surgeon was consulted gradually improve and entirely disappear. I have noticed the same condition in men who have indulged to excess in the sexual act, and who had not, so far as I could trust their word, masturbated for many years—sufficiently long a time to prevent me from considering that the masturbation had anything to do with their sexual debility,

and yet in these instances the physical conditions were precisely the same as in those who had masturbated. I have, moreover, been struck with the fact that in those instances where a true stricture was present, as shown by the fibrous and dead white look when seen through the endoscope, that there was very much less sexual disturbance than in those cases where the contraction was due to a puffiness of the mucous membrane. Perhaps in those cases where the congestive condition only was present, if left alone, they might have degenerated into a true stricture, but I think this is merely a surmise, and I do not know that I have anything to offer as proof one way or another.

Another cause which I think oftentimes operates in these cases of sexual debility, is that in addition to this prostatic irritation, etc., an enlargement of the middle lobe of the prostate occurs, which by pressure either upon the urethra or upon the vasa defferentia produces an abnormal excitement upon the slightest occasion; as, for example, when sitting upon a hard chair, upon crossing the legs, or upon straining during defecation, all of these acts being followed by an acute burning sensation in the prostatic portion of the urethra, sometimes with the sensation as though an ejaculation was about to occur, and in some few instances really followed by an involuntary seminal emission. In these cases it is that we find not only premature emissions, but sometimes a total absence of erectile power, so complete as to make the surgeon believe that the patient is really impotent, were it not for the fact that at intervals the patient will have an erection on waking up, which, however, rapidly subsides as soon as he is awake, and which is seldom followed, at least not for a considerable interval, by any further erection.

Varicocele, I am inclined to believe, is frequently the cause of sexual debility, oftener than is at present believed; and in such cases as I have had under observation, I have noticed that as the varicocele increases the sexual power seems to have become less and less, until when the final stage is reached and the testis is atrophied, and nothing is felt in the scrotum but a bunch of veins, the patient is to all intents and purposes impotent, and, under these conditions, probably permanently so. I have, furthermore, noticed in these cases that where the varicocele is seen sufficiently early to warrant an operation for its relief, it was followed by an improvement in the sexual functions and power.

Neuralgia of the testis is another cause which sometimes plays a part, but only, I think, because of the excessive pain which is one of the peculiar symptoms of this disease; the pain being so intense as to preclude a thought of anything else, and in that way producing imperfect erections, for in those instances where temporary or permanent relief is afforded, the sexual functions return, and are to all intents and purposes as good as they were before.

Tuberculosis of the genital tract does not produce any sexual disturbance unless the prostatic portion of the urethra or the testicles are invaded, and in these cases it seems to act less upon the function or erection than it does upon the premature emission, and subsequently by the lack of emission. It is in these instances that we often find the condition of azo-ospermism, and associated with this, under the microscope, the bacilli of tuberculosis are not infrequently found. This, however, is not common. Syphilis and gonorrhœa produce disturbance probably by some organic change occurring in the organs of generation, but in cases of tuberculosis the disturbance is produced probably by the breaking down of tissue either in the glandular portions of the prostate or in the body of the testis, producing either a plugging up of the epididymes or of the vasa defferentia, and so preventing the ejaculation of that portion of the spermatic fluid which contains the spermatozooa.

Syphilis in the earlier stages does not seem to have much influence upon the sexual function, but as the disease progresses and the seminal vesicles and the testicles are attacked with gummous infiltration, or gummata appear elsewhere in the uro-genital tract, we then find that the sexual powers becomes less, and, in some rare instances, may be almost entirely in abeyance, returning again, however, in the majority of cases, after vigorous antisyphilitic treatment. In these instances, not only is sexual debility present, but there is an absence of the spermatozooa in the seminal fluid, so that the patient suffers in a twofold direction, being both impotent and sterile. The same holds true in gonorrhœa, not during its earlier stages, for then the inflammation is such

that erections are unpleasantly frequent and associated with great pain, but it is in the later stages, and especially after the disease has lasted for some time, inducing stricture, that the sexual functions become affected, and if a gonorrhœal epididymitis has ensued, which must, however, be double, then azo-ospermism is the result, and of all of the varieties of azo-ospermism this is the one which promises the least results from any method of cure, and the longer the blocking up of the epididymes has occurred, the less chances of fruitful semen. In these cases, apart from the irritation produced by the stricture, there is no debility; the patients are often as vigorous as ever. They have what seems to be a normal ejaculation, save and except that the semen is devoid of its functifying principle—in other words, these patients become sterile but are not impotent.

One other cause may sometimes induce sexual debility, and that is an affection of the rectum, whether it be hemorrhoids, which is not an uncommon cause of temporary debility, but long and deep fissures of the anus, which by irritation will produce reflex irritation of the urethra, and so result in premature emissions, and, in some rare cases, will induce a weakening and lessening of the powers of erection.

In enumerating these purely physical causes which I believe to be most frequent as pathological factors in this disease, I do not by any means intend to decry the mental or nervous effect which is produced upon patients. It is often most pronounced, and in many instances seems to be the most prominint feature in the disease, but I believe that the error which has been made by surgeons in laying too much stress on the nervous part and too little on the physical, has worked to the detriment of both patient and surgeon, and has driven the former into the hands of the charlatan, when the surgeon could have given better and more permanent relief, and I have trespassed on the time of the Society in order to call the attention to the physical causes which I have found in the cases that I have had the opportunity of examining and treating for sexual debility, the majority of which I believe to be perfectly curable at the hands of the surgeon.

The short time at my disposal has not allowed me to make more than a hurried sketch, calling your attention to the salient points in as few words as possible; and now a word in regard to treatment:

For the first three, to wit, hyperaesthesia, stricture and varicocele, the treatment must depend largely upon local methods and not upon internal medication. Applications made through the endoscope, I believe, are far the best, and those applications range from nitrate of silver down through the various astringents to those which are purely sedative, such as cocoaine and the like. I believe that the most serviceable treatment in the majority of instances is by the solution of nitrate of silver, from ten to thirty grains to the ounce, and even stronger. Sometimes I have used fifty grains to the ounce. The pain when this application is made to the deeper part of the canal, provided the solution is not allowed to run out towards the meatus, is very slight indeed, sometimes none at all, and I believe that the local application through the endoscope is preferable either to the method of applying nitrate of silver by the porte-caustique or the syringes of Ultzman, Keyes, and others, because the application can be made directly to the part, the superfluous moisture can be soaked up by the cotton tampons at the end of the application, and no obstruction occurs. I do not believe, from my experience, that solutions of nitrate of silver, even when strong, produce stricture, certainly not when made through the endoscope. Nitrate of silver has received a bad name, and I think, in some instances, undeservedly, for, when properly used, I am satisfied that it is a very valuable adjunct in the treatment of uro-genital diseases. In addition to this, the various solutions of zinc, the permanganate among others, tannin either of an aqueous solution, or better with glycerine, are frequently valuable adjuncts, and should be resorted to as occasion requires.

In cases where stricture or a spasmodic contraction is present, the question comes up with regard to operation or the use of sounds, and in these instances where the stricture, or rather the contraction, is of the congestive and purely irritable type, I much prefer the use of sounds, of the fullest size that the canal will admit, passed at intervals of from three to ten days, and I believe not only does it have the effect of dilating the canal, but it has a sedative action upon a nervous and irritable urethra. I should not be inclined in these cases

to pass the instrument cold; on the contrary, I am in the habit of using it as hot as the patient can conveniently endure. They can be passed either alternately or within a few days after the local applications are made, but that will vary, of course, with the individual features of each case, and with the surgeon's belief of what is required.

Should varicocele be the cause, operative proceedure is the only method that offers any chance of success, and in these instances, I much prefer the operation by ablation of a portion of the scrotum rather than any attempt to tie the varicose veins. In these cases where tuberculosis, syphilis and gonorrhœa play a part, of course the internal treatment appropriate to these varieties of diseases is the only method that can be pursued, and in these instances the local treatment can be of little service.

The internal treatment I think plays a purely secondary part, and in instances where there seems to be a debilitated condition of the patient, a tonic may be, and undoubtedly is often, of service. As regards the so-called aphrodisiacs, I frankly confess I am somewhat skeptical of their value, and yet I have seen cases where I had reason to believe that good results followed, especially from the use of carefully prepared preparations of cocoa (erythroxylon coca) ergot, either alone or with iron, and occasionally damiana. In all instances when prescribing these preparations, it is well to have them made up by some responsible house, as so many worthless preparations of both coca and damiana have been put on the market, that unless the surgeon exercises some care in the selection of his drug, he is apt to be disappointed. I have for the past year tried fluid extract of Sabal Serrulata (the saw palmetto), and without committing myself to a positive opinion upon the subject, I have thought some patients were benefited by its use; but whatever the method of treatment be, it must be remembered that these people are a class who will try the patience and good temper of the surgeon, almost more than any other. I do not except cases of chronic urethritis. They are patients who should really be commiserated, should be treated with the utmost kindness, and be encouraged in every possible way that the surgeon can honestly and legitimately do.

To make a brief summary as a termination of this paper, let me state:

I. That the cases of sexual debility which are marked by imperfect erections and by premature emissions, are usually, if not entirely due to hyperæsthesia of some portion of the urethra.

II. That masturbation has very little, if anything, to do with it, beyond the fact that if indulged in to excess, it may induce a tendency towards this hyperæsthetic condition, but this is no more marked in masturbators than it is in those persons who indulge to excess in the venereal act.

III. That organic stricture has little, if anything, to do with it, but that associated with this hyperæsthetic condition, there is an irritable condition of the canal which produces spasmodic contractions of the urethra upon attempt to pass instruments, oftentimes during the first act of micturition and at the time of connection.

IV. That varicocele plays no unimportant part in these cases.

V. That neuralgia of the testis, if a cause of this disease, induces it merely as a secondary consequence to the pain which is one of the distinguishing features of this disease.

VI. That tuberculosis, syphilis and gonorrhœa may also play their part, and should all be reckoned with in summing up the causes which may induce this peculiar and depressing condition of affairs.

## THE USELESSNESS OF A MYDRIATIC IN EXAMINING AN EYE FOR THE PURPOSE OF PRESCRIBING GLASSES.*

BY D. B. ST. JOHN ROOSA, M.D., LL.D.,

Surgeon to the Manhattan Eye and Ear Hospital; Prof. in the New York Post-Graduate Medical School.

In 1876 I wrote a paper, which was read before the International Congress of Ophthalmology, on the relation of blepharitis ciliaris to ametropia. It was stated in that paper that many cases of this disease were connected with, and caused by, errors of refraction, and that the condition in such instances could not be cured unless the refraction was first corrected. This view caused some discussion, but I believe that its conclusions were

* Read by title before the Medical Society of the State of New York, February 7, 1894.

finally considered by experts in ophthalmic disease to be, in the main, accurate. The point was also then made that it was impossible, in a large number of cases occurring in young persons, to determine whether or not a refractive anomaly existed, unless paralysis of the ciliary muscle had been produced by the use of a mydriatic, and it was argued that the reason that many observers did not find this relation existing between blepharitis and ametropia was that they did not thoroughly test the refraction with the aid of a mydriatic. I still think that this view is correct, but I did not ask your attention for the purpose of saying any more upon this subject of the relation of certain diseases of the eyelids to uncorrected errors of refraction. I merely wished to bring to your attention, as preliminary to the present discussion, the fact that very early in my practice I resorted to the thorough use of a mydriatic before attempting to determine, in the case of young people with asthenopic symptoms, whether or not glasses should be worn, and if so, what. I continued this practice of using a mydriatic for the purpose of measuring the eye up to the year 1888, both in my hospital and private practice. It is a method of treatment entirely satisfactory in its final results, but it is extremely disagreeable to the patient; it involves a great deal of time, and it is tedious in the extreme to the practitioner. In many instances it was found to have been unnecessary, except that the positive determination that no considerable degree of astigmatism existed was made. It often settles the fact that there is no astigmatism sufficient to be corrected, and that only hyperopia or myopia, which can be very well determined by the ophthalmoscope, exists.

While in Paris, in 1887, and seeing a little of the work of Dr. E. Javal, I was greatly surprised to find that he, who had been an enthusiastic advocate of the use of atropine for as long a time if not longer than I had myself, and who was in the habit of prescribing glasses from the results obtained by the atropine, now, since he had perfected the ophthalmometer—the instrument for measuring the cornea—had entirely abandoned the practice. I found also that Dr. Bull, formerly on my staff, concurred in these views.

But this thorough use of atropine, which I believe was properly insisted upon as the only sure means of accurately determining the refraction, was somewhat abused by those who recommended it when there was no apparent spasm of accommodation, and for persons in middle life or advanced years. After 1876, papers began to appear from neurologists and young ophthalmologists, showing that they used atropine in what I should term an indiscriminate way—for example, in persons beyond forty years of age, where there can be no question, except in entirely extraordinary and exceptional cases, of spasm of accommodation. These writers ignore the physiological principle of tone in a muscle. In other words, presbyopes, who needed nothing but a few minutes' testing with glasses, were put under the influence of atropine, and persons with an eye so nearly normal that its deviation from emmetropia could be expressed by a positive spherical glass of one or two diopters, were considered to be subjects for glasses because under atropine they would accept, say + 0.50 D., when really all the belladonna had done was to remove the tone of the muscle. Something must be allowed for this in every human eye. The attempt to convert an ordinary eye into an ideal one, which in some quarters is said to be the proper course, I deprecate, founding my opinions primarily upon the work of Donders and Loring, both of which authors dwelt properly, as it seems to me, on the natural tonicity of the ciliary muscle. Most observers have long since come to the conclusion that the hypermetropic eye is the average eye of the human race, excluding myopia, and that it is a condition which of itself can cause no inconvenience until presbyopia is reached, when to the congenital axial elongation of the eye must be added flattening of the lens and rigidity of the ciliary muscle caused by time. Then, as everybody knows, a glass will be required for the presbyopia plus the hypermetropia.

When I found Javal measuring the cornea, and being satisfied with that as a means of determining the refraction, I undertook the same practice myself, and after six years of experience I am convinced that the use of a mydriatic to determine what glass should be worn is entirely unnecessary if the ophthalmometer is used. The great object in using a mydriatic was not to determine how much hypermetropia existed—that can be approximately estimated, although not always with complete accuracy, with the ophthalmoscope—but it was used to determine if astigmatism existed, and

if so, of what degree. Now this can be determined in a very few moments in the vast majority of cases—in, I think, as large a proportion as ninety-nine out of a hundred—by measuring the cornea alone, for lenticular astigmatism, although it was the kind possessed by its great discoverer, Dr. Thomas Young, about ninety-five years ago, very rarely exists, and in general considerations it need not be taken into account. Early in the investigations of astigmatism, Donders showed just how much corneal astigmatism the lens would overcome by its oblique position. This observation has been verified by the work of Javal, many others, and myself. In a very large practice in refraction cases in the Manhattan Eye and Ear Hospital for the last three years, my staff and myself have not used a mydriatic, except in the most exceptional cases, for the purpose of testing patients for glasses. We have never had such satisfaction in our prescriptions, and we have relieved our patients of a great loss of time and ourselves of a great burden in work. I commend this method to the respectful consideration of my fellow ophthalmologists. If the ophthalmometer is used, and the difference between the vertical and horizontal meridians of the cornea is once fairly established, the rest of the prescription becomes a matter of a very short time. Besides this, I believe, as I have attempted to show in a paper published in the *Medical Record* (March 26, 1892), that in young persons with asthenopia, caused by an error of refraction, who have as much as a diopter of corneal astigmatism, it will usually be sufficient to correct the astigmatism, and to allow the hypermetropia to be cared for by the ciliary muscle.

## NEURASTHENIA.

BY PROF. G. RAUZIER, OF MONTPELLIER.

Translated from the French, by D. Campbell Meyers, M.D., Toronto.

*(Continued from April No.)*

Therefore neurasthenia may affect, in the system, the functions of every organ. It may provoke symptoms of two kinds, symptoms of functional excitement or depression, the two varieties of affections succeeding or alternating to infinity in the same subject. This symptomatic wealth, this abundance of symptoms, will not be found, one may readily understand, in all cases of neurasthenia. Few patients are affected in all their functions, more often, on the contrary, one or more organs alone become the seat of the disease.

Thence one may conceive the multiplicity of forms which may present themselves to the observation of the clinician. These different forms, related among themselves by the similarity of their symptoms, form their individuality from two chief sources: 1, The cause which provoked neurasthenia and imprinted its marks on the symptoms. 2, The predisposition of organs, every affection, whose localization is indefinite, being directed towards that system which is in a state of relative weakness.

The classifications proposed by authors errs, as a rule, in want of uniformity, a certain number of these divisions having as a base a symptomatic character, others an etiological character, whence the great difficulty of placing certain forms doubly characterized in either category. Beard describes seven forms: 1, cerebrasthenia; 2, myelasthenia; 3, the gastric form; 4, the genital form; 5, traumatic neurasthenia; 6, hemi neurasthenia; 7, hystero neurasthenia. Bouveret recognizes nine varieties. 1, cerebro-spinal neurasthenia; 2, cerebral neurasthenia (cerebrasthenia); 3, spinal neurasthenia (myelasthenia); 4, acute neurasthenia; 5, hereditary neurasthenia; 6, feminine neurasthenia; 7 genital neurasthenia; 8, hystero neurasthenia; 9, traumatic hystero neurasthenia. Levillian seeking to avoid the error we pointed out above, and making the preceding groups his study, proposes two very distinct classifications, the one comprising the clinical varieties (the common cerebro-spinal form, hemi-neurasthenia, cerebrasthenia, myelasthenia, cerebro-gastric neurasthenia, also cerebro-cardiac, and cerebro gastric neurosis, the sexual neurasthenia of Beard) the other uniting the etiological varieties (tramatic neurasthenia, hystero neurasthenia, hereditary neurasthenia, feminine neurasthenia, masculine and occupation neurasthenia. Pitres, pursuing the path of simplification, and taking as an exclusive base the localization of morbid affections, describes only six forms: 1, *cerebral;* 2, *spinal;* 3, *neuralgic;* 4, *cardialgic;* 5, *gastro intestinal;* 6, *genital.*

On our part we accept the classification of

Mathieu, which he states and justifies in the following manner:

Three clinical circumstances are above all to be considered, because their existence or absence immediately furnishes important data on the etiology of neuropathic condition and its probable evolution:

*a.* Neurasthenia is simple, exempt from all marked symptoms of degeneration, exempt from other superadded neurosis.

*b.* Neurasthenia is accompanied by certain symptoms well defined of degeneration.

*c.* To neurasthenia are added the symptoms of one or other nervous diseases (the most frequent examples is that of hystero neurasthenia). It furnishes, according to the predominating symptoms, the following varieties:

| | |
|---|---|
| Nervous system. | Cerebro-spinal neurasthenia. |
| | Cerebral neurasthenia. |
| | Spinal neurasthenia. |
| | Peripheral neurasthenia. |
| Digestive organs | Dyspeptic neurasthenia. |
| Circulatory organs, | Cardiac neurasthenia. |
| Genito-urinary organs | Genital neurasthenia. |

Each localization furnishes mild and grave forms.

1. Cerebro-spinal neurasthenia answers to the preceding scheme; it comprises the whole of the symptoms of the neurosis, to which we need not recur. Certainly one may include in this category a certain number of sub-varieties.

The hemi-neurasthenia of Beard, or *neurasthénia dimidiée* of Charcot, occupies one-half only of the body, or affects one side chiefly.

Hereditary neurasthenia "is distinguished by precocity at the outset of neuropathic phenomena, their intensity, the frequent co-existence of fantasies or of fears connected with a mental trouble which sometimes exceeds simple neurasthenia by its long duration and finally by its resistance to treatment."—(Mathieu.)

Feminine neurasthenia (Weir-Mitchell) is the form observed particularly among women affected by uterine lesions, or again after great griefs, or physical fatigues, not compensated by sufficient recuperation. It is characterized by an extreme cerebro-spinal depression, with nearly constant hypochondriacal manifestations. "Often these are *geignardes* (Charcot), whose life is but one long complaint, in a monotonous key, for which anything serves as a pretext. Often also they think themselves misunderstood, and one finds at the same time among them neurasthenic depression and the torment of an unrecognized soul seeking a kindred spirit which it will probably never find."—(Mathieu.)

2. The cerebral form shows itself above all among subjects whose intellectual faculties have been overworked; it shows itself in headache, insomnia, aboulia, vertigo, impossibility of working. To these symptoms are sometimes added, among those exhibiting a tendency to the psychoses, melancholia and fears.

3. The spinal form, most frequent among devotees of pleasure or subjects of certain intoxicants, shows itself in rachialgia, amyasthenia (having a preference for the lower limbs), and genital troubles. It answers to the old conception of spinal irritation. Spinal irritation, says Armaingaud, who has thoroughly studied it, is characterized by a pain, affecting the length of the vertebral column, most easily provoked by pressure on the spinous processes, presenting various irradiations and accompanied by a number of functional troubles: among others, local congestions in different parts of the body, and nearly always with loss of strength and emaciation. The author lays stress on the intensity of the rachialgia and the hyperæsthesia of the vertebral column to pressure, to the passage of a damp sponge hot or cold, to electricity; pressure also reveals the presence of spots which are particularly painful. Some painful irradiations, of neuralgic form, without objective affections of the sensibility, may appear at different points of the peripheral nervous system, and be accompanied by a diffuse paresis, never ending in true paralysis; of vaso-motor affections, etc. Sometimes the analogy of the symptoms with tabes is such as to have created the word *neurasthenic pseudo-tabes*, to characterize that condition, very different in its prognosis from sclerosis of the posterior cords.

4. The *peripheral form* manifests itself most often by more or less acute pains of rheumatic or neuralgic character. These pains are not accentuated by pressure, nor accompanied by a corresponding cutaneous hyperæsthesia; they do not correspond with the course of the nerves, and may present themselves in the form of plaques or pain-

ful spots, localized in varying regions and by no means in harmony with regions anatomically or physiologically delimited.

When these pains are disseminated through nearly all parts of the economy, it is the *general neuralgia* of Valleix. When they are localized in one well-defined region, and maintain themselves there permanently, it is the *topoalgia* of Blocq, or monosymptomatic and painful neurasthenia. We would point out among these defined peripheral localizations of neurasthenia the *glosso-dynia* of Verneuil, with imaginary ulceration of the tongue, *coccygodynia*, *mammary algia*, certain *myalgias*, etc. There exists sometimes at the level of the painful spots, objective affections either of the sensibility or vaso-motor troubles.

5. The *dyspeptic form* (stomachic or intestinal) conforming to the digestive affections of various kinds. It shows itself sometimes by acute symptoms (simulating, in certain cases, typhlitus or perityphelitus), but generally presents a chronic evolution. Of all neurasthenic forms, this is the one which most frequently terminates in cachexia.

6. The *cardiac form* has been described under the name of cerebro-cardiac neuropathy (Krishaber). We have discussed it in the paragraph of accessory symptoms of neurasthenia.

Huchard has, quite recently, insisted on a special form of these cardiac affections, which he calls paroxysmal, painful arrythmia (sometimes it is permanent) and which should not be confounded with neurasthenic angor.

7. The *genital form* (the sexual neurasthenia of Beard and the Germans) presents a condition of sexual excitement soon followed by a condition of depression with impotence, spermatorrhœa and chronic irritation of the prostate region. In the female this form of neurasthenia shows itself by lombo-abdominal neuralgia, pains in the hypogastric or iliac region, pruritus of the vulva, vaginismus and menstrual derangements.

*B. Neurasthenia, in connection with signs of hereditary degeneration.* The psychical trouble dominating this form of neurasthenia, consists of *phobias*.

Legrand du Saulle has given of the most interesting among them, *the fear of spaces*, a magnificent and thrilling description.

"The fear of spaces, ordinarily compatible with all the appearances of the most robust health, is frequently produced at the very moment that the neuropath leaves the street and arrives at a square, and shows itself by a sudden pang and a peculiar sensation about the heart. The patient, now the prey of an undefinable emotion, finds himself isolated from the entire world at the sight of the space which appears before him, and he frightens himself beyond measure in spite of the slight foundation of his fear, and in spite of the wisest and most comforting exhortations that he addresses to himself, spontaneously. He feels prostrated, does not dare to leave the sidewalk, makes no step either forward or back, neither advances nor recedes, trembles in all his limbs, pales, shivers, blushes, is covered with perspiration, is more and more alarmed, scarcely supports himself on his tottering limbs, and remains painfully convinced that he will never be able to face this void, this desert place, and cross the area, which presented itself. Let any one suddenly look down a yawning chasm, let them imagine themselves to be above a burning crater, let them believe that they are crossing Niagara on a tight rope, or that they feel themselves rolling off a precipice, and the impression felt would not be more painful, more terrifying than that induced by fear of spaces. Nothing however hinders the progress of the frightened man, who moves his feet without advancing; this is proved by the fact, that in order to dissipate his terror, to recall his normal quietude and restore his courage, there is only necessary the presence of a companion, the arm of a passer-by, the hand of a child, the appearance of the light of a lantern, the meeting of a carriage, the possible assistance of a weapon, the support of a cane or even the possession of an umbrella.

Let the agoraphobe approach a house, his courage returns; let him enter a narrow street, he is reassured at once, let him meet an acquaintance, he is himself again, let him no longer feel that he is no longer alone and his bravery returns. The idea of being left alone in the desert fills him with terror, and the feeling of assistance no matter how slight, appeases him without effort. The unexpected sight of an open place takes away his strength, and confidence based on the slightest support, a deception brings them back to him at once. There is no fear without the void, no calmness without the appearance of a semblance of protection.

Fear of spaces may be produced equally in streets where the shops are closed, in a church, at a concert, at the theatre, in the presence of long walls of a facade, monumental and smooth, of a tapering perspective, of a bridge with numerous arches, of a long vault sustained by columns, sometimes in a place where there is a crowd, at an open air meeting, in an enclosure open to the heavens, without ceiling, and even in a public vehicle. This state of anxiety, which consists above all in an absurd and exaggerated and sentiment of fear in front of the void, is generally accompanied by sudden weakness of the legs and transient circulatory superactivity, with vague creeping sensations, with a sensation of commencing torpor, of cold, heat, icy perspiration, tremblings, desire to weep, rediculous apprehensions, of hypochondriacal ideas, of muffled lamentations and general trouble, truly painful with different alterations of facial color and physiognomic expression. The intelligence is sound and free will intact. Of what then is the patient afraid? Of wandering about, of weeping, of crying, of falling, of having a giddiness, of fainting, of being struck with apoplexy, of being considered a coward, of being a laughing stock, of passing for a fool, of wishing to go to the closet, of disappearing forever, of turning into nothing, but oftenist he is afraid—to be afraid.

Besides *agoraphohia*, or fear of open spaces, we will point out *claustrophohia*, or fear of enclosed spaces, the meeting of the two varieties constitute *topophobia*. *Astrophobia* is an immoderate fear of storms and lightnings; *anthrophobia*, or fear of men, causes the patient to fly from his fellow creatures; *monophobia*, or fear of being alone, deters him from isolating himself; *misophobia* is dread of fifth; *nosophobia* is fear of diseases.

There are yet fears of various kinds, fear of travelling by rail, of touching a door handle, of contact with such and such a metal, etc. Some patients fear everything (*pantophobia*), others, in short, have fear of being afraid (*phobophobia*).

Slight fears, easily allayed, exhibit themselves sometimes in simple neurasthenia, and do not imply an unfavorable prognosis, it is not the same with the grave, imperious, inveterate phobias, whose verifications would impose serious reservations on the intellectual future of the subject.

*C. Hystero-neurasthenia.* Neurasthenia can be associated with different neuroses, epilepsy, migrame, Basedow's disease, but it is chiefly on hysteria that it is superposed in many cases. Above all it is following railway accidents that the two varieties of neurotic affections, whence the name, *railway-spine* given by the English (Brodie Erichsen) to those nervous manifestations. Neurasthenia, affecting ordinarily the cerebro spinal form, habitually precedes hysteria by some days or even weeks, then the latter appears, and the two neurotic diseases ally themselves closely, combining with one another (Charcot).

The Germans (Oppluheim Thomsen) have refused to accept the interpretation, now almost universally admitted, of nervous affections following tranmrtism; now they make it a nervous disease in part, allied to hysteria, but not blending with it, *tranmatic neuroses.*

We need not enter here into the details of that discussion. *(To be continued.)*

## Selected Articles.

### SLEEP, SLEEPLESSNESS AND HYPNOTICS.

*(Continued from April number.)*

Warmth, judiciously used, however, is attended with good results. The fact that so many of the insane sleep best on hot nights should not be lost sight of. In Griesinger's "Mental Pathology and Therapeutics," page 75 *et seq.*, sleep, in connection with insanity, is well considered, and he particularly compares insanity to dreaming.

Preyer originated the blunder that sleep was caused by a toxic substance in the blood, upon the inference that as fatigue was associated with sarcolactic acid in the muscles, the latter was the cause of the former. Pflüger regarded sleep as cerebral asphyxiation from excess of carbonic acid accumulation. On the other hand, recent experiments point to increased consumption of oxygen during sleep. Evidently, as a definite amount of nitrogenized hydro-carbonaceous matter is consumed in all waking effort, cessation of activity lessens this consumption, but not to the extent of arresting it altogether, for the inevitable result would be a disintegration of the tissues.

The complex albumen molecule, $C_{72}$ $H_{112}$ $N_{18}$ $SO_{22}$, with its 225 atoms, in undergoing metabolic changes, adds to and subtracts from its number of atoms within a certain range, and maintains its life and potencies. Let us say that twenty-

five of its atoms are used up, exploded in exertion, and its limit of exhaustion has been reached. Plainly, these twenty-five atoms should be regained during comparative quiescence by other than toxic or asphyxiating means. In short, the cell eats while the colonial activity ceases, and this is the meaning, the end and aim of sleep. If, in addition, twenty-five more atoms enter into the combination, making it a still more complex molecule, a margin of fifty atoms may thus be imagined as enabling extra exertion within safe limits. Destructive metabolism could be supposed to ensue from several hundred of these atoms being parted with.

The chemic composition of the hypnotics affords no clue to their *modus operandi*. The mere presence of nitrogen in many is negatived by this element also occurring in ammonia and thousands of compounds with varying properties. Chlorin also appears as a food constituent in salt, as part of the anesthetic chloroform, and as a suffocant in its gaseous form. Neither the number nor the position of the atoms of carbon, hydrogen, nitrogen and oxygen in morphine explain why it differs from quinine which also contains these elements in other proportions.

Neither complexity nor simplicity of atomic combination guarantees any explanation of the mocular rationale, but in a general way the more useful drugs have a constitution admitting of more or less direct conversion into animal constituents, and yet this is far from being a safe universal guide, for some of the deadliest poisons, even in small quantities, resemble foods in their chemic structure.

In some instances, solubility modifies actions materially for better or worse, in others the looseness of the atomic make-up explains some effects, and the resistance to atomic splitting up, or the temperature necessary for decomposition, explains other effects. With what knowledge we possess we can formulate something in general from specific instances :

Alcohol, $C_2 H_6 O$, is rapidly assimilated and in a certain sense is a food. This rapid assimilation by reconstructing the tissue could account for its stimulant effect, and when there had previously been cell waste upon whieh the insomnia depended, the sleep-inducing properties of alcohol are accounted for. The stupidity that follows over-indulgence is precisely what would occur from cerebral tissue surfeit.

Morphine, $C_{17} H_{19} NO_3$, upon thorough consideration also falls into this dangerous food category. It, with alcohol, though less rapidly, enters into molecular combinations with nerve tissues and induces a certain exhilaration and subsequent dulling of the senses.

The exhilaration caused by oxygen and the stimulant effects and later anesthesia of nitrous oxide gas, without doubt are owing to the rapid assimilation of these articles by the blood and and nerve centres. The stimulant effects of all these agents could be ascribed to rapid atomic interchanges, such as occur with less swiftness and danger in the ordinary course of nutritive supply.

The warmer blooded birds take up oxygen more rapidly than mammals, and far more so than reptiles. The acidity of muscle and nerve substance in connection with blood alkalinity renders possible the conveyance of alkaloids, and make it likely that soluble alkaloidal hydrocarbons of the neurotic group, assimilable by the organism, have sufficiently close molecular resemblances to the acid protagon as to account for their mutual affinities and bio-chemistry.

In the constitution of protoplasm, as well as that of any compound whatever, there is a necessity for the absence of certain molecular groupings which destroy the combinations if integrity is to be preserved. The cell environment is reached by adaptability, and in the differentiation of cells, it is easily seen, that what would be nutrient to one may easily poison another by combustion conversion, as with sulphuric acid, or affinities in lesser degree existing between the toxicant and molecule.

The life of the cell depends upon the absence of these deleterious molecules for which there are affinities, precisely as animals must avoid fire. Prussic acid, H C N, presents the simplest example. The nitrogen therein is in a dangerously assimilable form, and its sudden surcharging of nerve centres with carbonized blood paralyzes the body. Even though the venous blood occurs after prussic has first caused the blood to appear to be arterialized, at least destructive chemic changes are instantly induced by this simply constructed poison. The action of nitro-glycerin and amyl nitrite exhibit the swiftness of union between the nitrogen and important structures. Nitrogen has a persistent tendency towards its free inert state, and this very disposition confers upon it great physiologic importance. On the other hand, oxygen has a great antipathy to uncombined existence. These two mechanically mixed ingredients of the air play complementary parts in biologic phenomena.

Certain drugs have special affinities for certain groups of nerves, and white pigs and sheep are said to be differently affected by vegetable poison from colored individuals, a fact accounted for, doubtless, by the presence or absence of pigment compounds, which have affinities for or resist the influence of certain poisons.

The antidotal action of chlorine gas in prussic acid poisoning may be due to the former directly lessening the surfeit (so to speak) imparted by the hydrocyanic acid. The sedative property of

small doses of the latter show that it has a nutritive value which larger doses exaggerated poisonously.

The theory that chloral, $C_2$ $HCI_3$ O, liberates chloroform in the blood is tenable notwithstanding the definite urochloralic and other urinary excretion after chloral ingestion, but how does chloroform, C $HCL_3$, cause anesthesia? Its solvent power over sulphur, phosphorus and fatty bodies, conjoined with its primarily intoxicating properties, might make it appear to combine slight nutrient with destructive effects, the latter acting later but more powerfully.

The greater safety of ether (sulphuric ether, $(C_2 H_5)_2 SO_4$) and its readily decomposing into alcohol, sulphurous acid and olefiant gas, together with its stimulating property in small doses, point to the nutrient action outweighing its toxic or to the relative proportion of each being within safer amounts in ether.

It is doubtful if the bromides become substitution compounds in any of the animal tissues, further than to pervade the secretions and lessen activity by taking the place of nutrient materials. About as free nitrogen dilutes the air and lessens the quantity of oxygen respired, so may the inert bromide salts saturate the circulation in place of other materials that could enter into combination. If bromide salt ingestion passes a certain point, distressing insomnia may result, probably from the anemia exceeding what ordinarily occurs in sleep. Chloral, also, in large doses may utterly fail to do anything but cause distressing wakefulness and gastric irritability, especially in senile debility associated with heart disease. The significance of this being that waste is but increased by the chloral. Alcoholics in such instances act promptly and beneficially for easily understood reasons.

Ergot has an indirect hypnotic effect through its contraction of the blood vessels, upon the muscles of which it acts directly. Winckler's discovery of a coloring matter in secale, closely resembling hematine, might mean that oxygenation of the involuntary muscles is accomplished by ergot, and the contractility is thereby induced.

Though, strictly speaking, phenacetin and phenocoll cannot be classed as hypnotics, their effects as sedatives and certain chemic considerations make them specially interesting as neurotics.

The antipyretic effects of acetanilide and phenacetine when combined with acids are destroyed; the earliest discovery of the kind being that of Ehrlich, that the acid sulphone group abolished the affinities of certain substances which they previously possessed for the nervous system. The existence of so many alkaloids having this affinity, taken in that connection, afford hints that some of the combining efficacy of neurotics depend upon the union of a base and radical in the nerve tissues, notwithstanding the fact that these alkaloids may be introduced into the system combined with sulphuric or other acids; such acidulation being looser than in the coal tar series.

An ingenious introduction of the basic glycocoll into the groups whence phenacetine is derived rendered it much more soluble, and to this extent increased its ease of administration without altering the antipyretic and analgesic properties of phenacetine when thus converted into phenocoll.

Unlike the majority of synthetical antipyrectics, phenocoll, according to Kobert, of Dorpat, is not poisonous to animals and does not affect the blood. It has a slight stimulant effect upon the circulatory system. Phenacetine is closely allied, chemically, to acetanilide, and physiologically both phenacetine and phenocoll act as a modified acetanilide or antipyrine. What particular change in the construction accounts for this modification only great advances in bio-chemic knowledge will reveal, but it can be conjectured that differences in the closeness with which nitrogen, as well as other atoms are held in a compound, may unlock a molecule quicker or retard its entering into new combinations.

Considering the derivation of paraldehyde, its somnifacient influence might be regarded as similar to that caused by alcohol. The ordinary ethyl or acetic aldehyde being alcohol, minus two atoms of hydrogen, and paraldehyde is formed by the condensation of three molecules of aldehyde into one molecule. It is so easily split up, so sensitive to oxidizing agents, and so much care is required in securing a pure article, that with safer and better hypnotics in the field paraldehyde is not likely to come into general favor. Not only has the pungent aldehyde been found in it as an admixture but the poisonous amyldehyde also.

Urethane and its derivative, somnal, have been pretty well abandoned by physicians. "Antikamnia" owes its present popularity to advertising, and being but a mixture of acetanilide, bicarbonate of soda and caffein, according to Helbing (Modern Materia Modica, p. 3), it needs no further mention.

Were it not for chloralamide, which is rapidly superseding all modern synthetically constructed hypnotics, sulphonal would have remained in high esteem. In treating the insane, sulphonal has the advantage of solubility in hot tea or coffee, and can therefore be given without the patient's knowledge. The common practice of administering the dry sulphonal leads to undesired effects, such as a prolonged but unsatisfactory drowsiness or stupidity usually the day after it is taken. The action of sulphonal has apparent reference to its alcoholic derivation through mercaptan. The derivatives, trional and tetronal, possess few, if any, advantages over the original drug, while it is

claimed that the latter sometimes caused vomiting.

The substitution of chloral for opium created an epoch in therapeutics, notwithstanding the fact that chloral was found to have very disagreeable after effects and some dangers in its use. The advent of sulphonal enabled chloral to be largely superseded, but finally the discovery of chloralamide affords us all the advantages of chloral in the absence of its disadvantages.

The poisonous dose of chloral hydrate is not established; small doses have caused death, and large doses have been tolerated. Idiosyncrasies cause wide variance in effects.

Chloralamide requires a slightly larger dose than chloral, but the former causes what resembles ordinary physiologic sleep to a far greater degree than is induced by chloral. In other respects the drugs are closely allied, except that the deleterious properties of chloral appear to be absent from the newer compound. Particularly the gastric irritation induced by chloral frequently destroys is usefulness, and chloralamide has no such influence upon the stomach, nor is it an irritant to any mucous membrane.

Some laboratory experiments of Kny of Strassburg, demonstrated that chloralamide was free from action upon the heart and digestive tract, nor did it cause congestion and the other unpleasant after effects of chloral, though he inferred that the latter was slowly released in the circulation from chloralamide, and its depressant effects were counteracted by the formamide which acted as a stimulant.

Thirty years ago, formiate of ammonium was used by Ramiskill in the London Hospital for the Epileptic and Paralytic. He considered it useful in chronic paralytic diseases with general torpor, and he thought that it had a special tendency to the nervous centres. Formic acid is a circulatory stimulant, but too energetic to be useful except when chemically combined. It is one of the fatty acid series and has been found to exist in small quantities in the spleen, pancreas, thymus, muscle and brain, and in leucocythemia in the blood, urine, sweat and marrow.

An important group of animal constituents, called the amido-acids, is derived from the fatty acids by replacing one or more hydrogen atoms by the radicle amidogen $NH_2$. This includes leucin, tyrosin, glycocin, taurin, creatin.

As the amines, amides and amido-acids are nitrogenous organic compounds among the simpler organic proximate principles, it is a safe assertion to make that the union of the formamid with the chloral in chloralamid justifies the classing of this new preparation *among the nutrient hypnotics;* that is, among those like alcohol, which, when properly administered, supplies material that has been exhausted in the nervous centres, notwithstanding the superficial objection that some of these organic compounds are decomposition products.

Reasonably, much of the toxic influence of chloroform may be ascribed to the solvent power of that anesthetic over sulphur, phosphorus and fatty bodies, as these substances are important ingredients of nerve tissue. Now, if this toxic effect is obtunded or prevented by the union of chloral with formamide through the former expending this deleterious solvent propensity upon the latter, and the formamide being so closely allied to the normal nitrogenous proximate principles as to act practically like a food, which we can all the readier assume from its slight stimulant effect upon the circulation, the combined nutriment and toxic effect of chloral in that drug and chloroform is replaced by *an almost wholly nutrient hypnotic in the compounding of chloralamide.*

Glycocoll (also known as glycocin, and amidoacetic acid) is the base which united with the phenacetine group forms phenocoll and renders it soluble. This being an amido-acid, on the principle enunciated above, phenocoll should be a safer and more effective antipyretic and sedative than phenacetine.

The published attestations of physicians as to the usefulness of chloralamide are so numerous, but at the same time so uniform, that brief mention of most of the references would swell this article unduly.

There has been a notable absence of any disposition to decry the drug in any quarter worth attention. In the use of every hypnotic, as well as any other therapeutic agent, bungling administration occurs, but this should not discredit rational exhibition. We may as well inveigh against water because it drowns.

Briscoe, of Chicago, accounts for a few failures through some practitioners using hot liquids as a vehicle, when chloralamide should never be offered in any other than cold solution.

In my experience, the elixir has a delayed action as compared to the powder dissolved just before use, an effect for which I have not tried to account.

The facts that chloralamide is about one-half as expensive as sulphonal, and superior to it, one would imagine were inducements for hospitals to purchase it in preference to the older and costlier hypnotic, but in certain quarters the error prevails that chloralamide is only soluble in alcohol. This arises from the fact that in twenty parts of water, chloralamide dissolves very slowly at ordinary temperatures, between 60 and 70 degrees F. Where, for any reason, it is not desirable or convenient to use the small amount of alcohol, about a minim and a-half to the grain, in preparing it for use, the aqueous solution can be prepared beforehand, half a day, or kept in the dispensary stock in that form.

Brandy or raspberry syrup are the most used vehicles; a drop or two of dilute hydrochloric acid to the ordinary dose facilitating solution.

It is to be hoped that the mistake so often made in giving sulphonal dry, will not be made in chloralamide administration, as its action may be delayed until the next day and cause a stupid half wakefulness not at all desirable.

Dr. Joseph Collins contributed to the July, 1892, *Journal of Nervous and Mental Diseases*, an excellent review of his experience with chloralamide in insomnia associated with various troubles, such as phthisis, pneumonia, neurastheuia, alcoholic delirium, senility, chorea, sciatica, lithemic headache, overwork, opium habituation, meningitis, and reports that he was particularly struck with its efficacy in two conditions, viz., pain and excessive irritable activity of the brain.

An important feature he notes, in the treatment of certain cases, is to beware of giving drugs which will in any way militate against the excretion of deleterious matters from the system and lower the condition of vascularity, such as the preparations of opium and the bromides.

"In conditions where chloral is indicated," states Dr. Collins, "but some intervening symptom contra-indicates its use, such as weak heart and respiration, as in the asthenic stage of acute diseases, of the heart and lungs, chloralamide can be substituted with safety and with good results."

He sums up in favor of its safety and reliability, its absence of after-effects auch as headaches, and its value as a hypnotic where pain or cerebral activity are prominent factors.

Taking other authors at random, we find that as to the time of action, personal idiosyncrasy determines differences, but to no greater degree than was observed with chloral, the average limit being from one-half to three hours intervening between the dose and its effect, the duration of sleep varying from two to nine hours.

In many forms of mental disease, chloralamide acted beneficially in relieving insomia; regular sleep was induced in chronic alcoholics and in patients suffering from locomotor ataxia even when they had been taking large doses of morphine. Other ailments in which sleeplessness occurred were alleviated to the extent of sleep procuring by chloralamide as follows: Cardiac asthma, chorea, neuralgia, rectal carcinoma, hysteria, spinal disease, delirium of cerebral hæmorrhage, rheumatic fever, thoracic aneurism, gastric carcinoma, hepatic carcinoma, bronchitis, cephalalgia, chlorosis with mitral insufficiency, endocarditis and renal colic.

It has been effectively used as a sedative in seasickness, neuralgias and the sufferings of gastric ulcer.

The United States Dispensatory designated chloral as the most efficient soporific and the one most often used, and claimed that for producing sleep no medicine equalled it except opium, and to this it was preferable as wanting the properties which render opium inapplicable in certain cases, as in active congestion and acute inflammation of the brain and to a certain degree in constipation of the bowels.

In the rapidly accumulating literature of the subject, we begin to note that where chloralamide appeared to be ineffective in a certain disorder, in the experience of one author, other physicians obtained good results from its administration in the same ailment. In short, the history of chloral discussion is repeating itself in some of the contradictory experiences, but with the advantage for the later drug, that, wherever chloral has been established as of use, chloralamide proves not only more satisfactory, but where through deleterious properties contra-indications for chloral using forbid its use in a large list of diseases, chlorlamide has been proven to be perfectly safe. No hypnotic has won so universal favor in as short a period and without the arraignment against it of occasional unfortunate episodes.

The largest dose on record used at one time is reported by Dr. Lackersteen, *Medical News*, November 25, 1893. A patient swallowed a mixture containing 140 grains of chlorlamide with about 40 grains of bromides and fully recovered from the stupor which followed.

Personally, I have found it useful in facial neuralgia in small doses, and often sleep was induced by from fifteen to thirty grains when pain had previously prevented rest, showing that chloralamide has sedative or analgesic effects.

The restlessness of anæmic states has been allayed by small doses, and in a few cases I have substituted chloralamide for the bromides in treating epilepsy with apparent benefit, alternating the drugs or using them conjointly so as to diminish the dose of each. It would require at least a year's experimentation in this disease with chloralamide to enable a more conclusive statement than that it has been satisfactory as far as used by me; but I have not excluded other medicines at these times except for such short periods in treating epileptics that not only will a lengthened period be required to determine how far chloralamide is useful in this ailment, but I would prefer to hear from numerous other physicians who may make similar trials before pronouncing unqualifiedly in favor of its continued use in epilepsy.

Against the distressing activity of hemichorea in adults, which destroys rest and prevents sleep for so long as to imperil life, I hope much from chloralamide as I had previously found that chloral was absolutely the only remedy that would afford the required sleep for a few hours at a time; had chloralamide been then known it could have been

continuously used where the chloral had to be withdrawn owing to the stomach irritability it induced, substituting a source of danger equally grave. Dr. Barrs, of Leeds, reports good effects from chloralamide in ordinary chorea. Some reports from psychiatrical institutes venture statements to the effect that chloralamide is good in one psychosis and not in another. Now the trials have been far too few to enable such assertions to be extended generally.

There is a strong probability that a large percentage of all cases of insomnia in the insane can be relieved by judicious chloralamide exhibition, particularly if attention is paid to accompanying conditions, and general physiologic treatment is adopted at the same time. To merely impute the sleeplessness to brain disorder, and give a hypnotic without reference to the condition of the heart, liver, kidneys, or emunctories generally, would be extremely irrational, and would fully account for failures in so ne instances. At times I have found that the insane patient would be affected differently by the same dose from no discoverable cause, but where proper attention has been paid to the general bodily condition, as a rule, good results were secured with chloralamide.

In delirium tremens, it is only common sense to see that elimination is carried on properly, and often eliminants alone will end the furor of alcoholism.

In some of the congestive attacks of paretic dementia, ergot if anything, would prove more useful, but paretics will secure sleep from chloralamide ordinarily, as well as other patients.

I have found it useful in the sleeplessness and painful cerebral state of melancholia, and particularly so in the case of one recurrent melancholiac whose relapses were cut short by the prompt action of the drug.

In cerebral and spinal syphilis, pain is assuaged markedly by chloralamide, but of course it should not be given where there is a stuporous tendency, nor with expectation of anything but amelioration.

In the traumatic neuroses it is particularly valuable. Several cases of Erichsen's disease from concussion of the spine were enabled to secure sleep from chloralamide, when ergot, massages and hot water applications which had previously been helpful, had failed.

If the small doses of chloralamide, when substituted for bromide of potassium, are found to be generally applicable, I do not believe that ill effects can follow from the abuse of the chloralamide in this way, at all comparable to what has been experienced in the wretched overdosing of the bromides. At least the anæmia and mental hebetude produced by bromide will be escaped from by the substitution. And how far these small doses of chloralamide can be properly used, remains to be ascertained, but my experience has been satisfactory enough to lead me to continue their use in many of the nervous affections where irritability or pain are prominent.

There is no such a thing as the chloral habit, which is much more readily stopped than the opium addiction, but whether it is too early to assert that there is or is not a chloralamide habit, certainly nothing denoting any liability to habituation has been prominently mentioned, though so far as that is concerned, any drug that proves serviceable in continued suffering may be used too long, and the only question of concern is what undesirable consequences may come from such prolonged use. If chloralamide is a reconstituent hypnotic, there can be no such bad effects following its over-indulgence as are recorded against opium and chloral.

It would be folly to expect that any single remedy for insomnia would be available in all instances, for just as sleepless states may be caused by any of the multitude of maladies to which the body is liable, so must there be numerous appropriate measures of relief, when relief is at all possible. The advice to seek and remove the cause of the sleeplessness is sensible enough, though in too many instances the cause is only conjecturable. Nevertheless, a rational system of hypnotic use can be secured on a physiologic basis, and with far more satisfactory results if we duly regard the cause of the loss of sleep and existing bodily conditions. For example, a dose of ergot in some hyperdermic states may relive pain or cause sleep, by lessening the vascular tension upon which these disabilities depended. A hot bath may distribute the circulation, and act derivatively upon organs which, when congested, caused the distress and wakefulness. Massage acts similarly when scientifically applied, and when unskilfully made use of, may add to the discomfort; for example, if derivation from the head is set up by massage, it will relieve cerebral hyperemia, but add to cerebral anemia, so this method must be resorted to with full knowledge of the physiologic results aimed at.

In a general way, we may classify hypnotic action as accomplished by derivation, such as by removing irritative quantitative causes; by elimination of quantitative or qualitative causes, as of some toxic agent; reconstructive action by re-supplying parts in states of defective nutrition; sometimes by minimizing activity until rehabilitation can overtake waste with supply; by restoring normal function as with digitalis or alcoholics. The least desirable of all methods being such as merely stupefy and overload the circulation with effete or poisonous material, through interfering with elimination, or by destructive changes induced in nerve tissues, or the blood upon which the nerves depend for sustenance.

So eliminative functions should be kept in good repair, if possible, when almost any kind of a hypnotice is given, particularly such as are likely to add some toxic material to the system; but the ideal sleep procurer would be one that abstracted nothing from the nervous system that it contained normally, nor added thereto anything deleterious; and as sleep is a process of repair or feeding of the nerves and their ganglionic centres, still more effective would be whatever caused sleep by repair of such waste; and unless credible evidence to the contrary appears in the course of time, we are in possession of such a hypnotic as chloralamide.—S. V. Cleaverage, M.D., in *Jour. Am. Med. Assoc.*

## DYSMENORRHŒA—ITS CAUSES, SYMPTOMS AND TREATMENT.

*Gentlemen:* The patient I am going to show you this morning has been operated on in the hospital of this college some eight weeks ago. She is twenty-five years of age, a widow, and came to me with a history of intense pain in the side and a very severe dysmenorrhœa. She has been suffering in this way for three years, has been married for four years, and has not given birth to a child.

When I came to examine her I found that both tubes and ovaries were very much prolapsed and rolled down in the cavity behind the broad ligament. The cervical portion of the uterus was small, the organ bent, and a stricture existed at the internal os.

I sent her to the hospital and performed the operation of dilatation. I curetted and packed the uterus, opened the abdomen, and broke up the adhesions about the organ. I tried to save the appendages for her, but has she had suffered from pelvic peritonitis, the fimbriated extremities of the tubes were bound down to the posterior surface of the ovary, and the anterior surface of the ovaries to the broad ligament posteriorly, so that the ovary was completely adherent to the surface of the tube. I found that both ovaries had undergone cystic degeneration with induration of the capsules. As there was nothing I could do for these organs with any prospect of cure, I removed them. She now comes here that we may see her condition and note the result.

As we have here a case that illustrates dysmenorrhœa, I want to say a few words on the subject. This is one of the most frequent pathological conditions in gynæcology that you will be called upon for advice and treatment, and is a subject of very great importance. There are so many varieties of dysmenorrhœa that I hardly know where to begin. They are always difficult to relieve without surgical procedures, and even then you sometimes meet with failure.

You all know what is meant by the term dysmenhorrœa, which simply denotes painful menstruation. You have to arrive at the true cause of this trouble by the process of exclusion.

To make a diagnosis of the form of dysmenorrhœa in a young girl you have to proceed in a different manner than you would with a married women. For you must bear in mind that dysmenhorrœa, means, so far as the patient is concerned, simply pain at menstruation, while in your mind it represents half a dozen different diseases; so you have to be careful making a diagnosis and selecting your treatment.

For that reason I generally begin my examination in the following way: I commence by asking the patient at what age she commenced to menstruate, the average age in this country being between thirteen and fourteen, according to my clinical experience.

The next question I ask is the duration of the flow, and the average here is between three and four days; but if it exceeds that time you have then to remember there is a menorrhagia present.

The next question is the amount of the flow and the color of the blood, whether it is pale or dark in color or bright red, in order to determine whether this painful form of menstruation is attended with loss of mucus or loss of blood. Then I ask the location of the pain complained of, and you will sometimes find the patient's statement on this subject very indefinite. The pain of dysmenorrhœa will be generally felt most intensely either over the pubic bone, in the back, or running down the legs. Patients say that it is most acute in one, or perhaps more than one, of these localities.

The next question that naturally follows in rotation, and which is most important in guiding you to a diagnosis, is at what time the pain commences, whether before, with, or after the flow. The answer to this question will enable you to locate the point from which the pain originates. Pain preceding the flow appears to be located directly over the pubic bone. Pain that disappears with the establishment of the flow is almost invariably due to a stricture of the internal os, to anteflexion or deformity. Pain coming on with the flow and continuing with it, but disappearing with its cessation, almost invariably, so far as my clinical experience teaches me, is due to disease within the uterus.

Pain in the sides coming on before the flow and extending down the limbs is more frequently found in married women, who have had frequent childbirths, or have had a miscarriage. Such a pain I have found to be almost invariably associated with tubal and ovarian disease; and even in single women who have had no miscarriage, but have suffered from such a pain in the sides extending down the limbs, you will find ovarian disease

as a result of obstruction, the blood being forced back into the tubes from the uterine cavity.

The fourth symptom I usually look for is that of pain in the back. In women suffering from dysmenorrhœa who complain of pain in the back, associated frequently with pain on the top of the head, you will find one or another of the following conditions, or perhaps both confined, viz.: retroversion of the uterus and disease within that organ—a so-called fungoid endometritis. If I have the history of such a condition in a single woman, I am content to stop there till I examine her; but if in a married woman, then I go into a history of her married life and learn how many deliveries and miscarriages she has had, and when they took place; if a child has been born since the last miscarriage, etc. It is my experience that women who miscarry before they bear children are fewer in number than those who miscarry after they have borne children.

Now, you may have a dysmenorrhœa due to a soft thickened mucous membrane as the result of child-bearing and getting out of bed too early, or as the result of miscarriage; or you may have scar tissue at the internal os, through which you cannot pass a probe. You can readily see that you will get pre-menstrual pain in such a condition. The uterus is filled with blood, and as it contracts it gives rise to the same pain as in the expulsion of a fœtus. You may find the uterus normal in size and a cyst on its side, which will account for the dysmenorrhœa.

So from this you can readily see that you have to obtain all the points before you can make up your mind as to the form of dysmenorrhœa present in any given case. Then having determined upon the cause of the dysmenorrhœa, you can prescribe for your patient and give a fairly good prognosis. I am, however, always guarded in my statement with regard to the cure of any case. I in that way I do not disappoint the patient and hold her confidence, she obeys my instructions, and I am allowed time to treat whatever condition is present. I will now dwell a little while on the treatment of dysmenorrhœa, and in this connection I wish to say that I will allude only to three specific conditions, which are anteflexion in a girl, subinvolution in a married woman, and retroversion in either. If you have an anteflexion with a dysmenorrhœa in a virgin you have a difficult case to treat. It is a very difficult matter to treat such dysmennorrhœa, without rupturing the hymen. Now the subject of electricity comes up in this connection, and I speak of that first because I sometimes employ it first in these cases. I place the patient on her back, make a digital examination and find out the position of the uterus. Then one electrode fastened to the pad is placed on the abdomen, and the patient is turned over into Sims' position. Then with this Sims' speculum, which you can pass into any girl's vagina without inflicting injury, I simply draw the hymen back so as to allow the air to enter, and that inflates the vaginal canal, and with my headmirror I inspect the cervix. I next introduce my other electrode into the os. I can now apply the electricity with the patient lying on her side, and I know that the electrode in the cervix is doing its work satisfactorily by the appearance of froth at the os. I begin with a current of 20 to 30 milliamperes and gradually increase that up to 50, but seldom go beyond that number. The application of a current of 50 milliamperes for a space of ten minutes at a time, twice a week, is my method of using electricity. Then after removing the electrode from the cervix I cleanse the vagina, and if there is tenderness about the uterus, I apply iodine to the parts. I then take a small glycerine tampon and place it in front of the cervix in such a manner that the glycerine shall act upon the anterior surface of the os. If after a few such treatments as this the patient has pain, I stop the use of the electricity for a time and give applications of iodine or ichthyol in glycerine.

If after two months' treatment the patient returns with the same symptoms, or with symptoms modified to a certain extent, I tell her that she has a stricture at the internal os, which is of so dense a character that it must be divided. Then at my office, or at her home if possible, I put her in Sims' position, cocainize the parts, and with a ureterotome I cut the internal os in four different directions, and with Dr. Hanks' dilator I dilate the strictured part quite freely. Four days later I dilate a little more, until in a short time I am able to use a currette and scrape the mucous membrane of the uterus. Having scraped this membrane I pass in a strip of iodoform gauze and let the patient wear this as long as she may, repeating this procedure once a week until menstruation appears. Then I withdraw the gauze during the menstrual period. If the dysmenorrhœa be due to obstructive causes, the next menstruation will be an easy one.

But if, on the other hand, the case has been going on for years, and pain across the abdomen accompanies the pain in the side, then I do not promise a cure of the trouble, but, perhaps relief of the symptoms. Many patients come to me complaining of these conjoined symptoms, and invariably after giving them electricity, I apply iodine to the tubes and ovaries and curette the uterus. If a married woman who has borne children, but has not miscarried, comes to me suffering from the same condition, I simply advise her to go to bed and have an an operation performed for the relief of these symptoms. If she has not a lacerated cervix, but a large subinvoluted uterus, I treat the cervix as if it were lacerated, cut out the scar

tissue, and suture the lips of the wound, introducing gauze into the canal.

If, besides subinvolution, I find the tubes and ovaries diseased, I make no promise until I know what result will follow the treatment of these organs. If no good result follows, then I advise a laparotomy. If dysemenorrhœa exists combined with retroversion, the first thing for you to do is to restore that uterus, if possible, to a normal position, and if it is bound down by adhesions, then surgical interference is at once indicated.—Dr. A. Palmer Dudley, in *Internat. Jour. of Surg.*

## MEDICAL NOTES.

Many cases of *Aortic Regurgitation*, Prof. Hare says, will be benefited by digitalis.

The best way to treat *Abscesses of the Liver*, Prof. Keen says, is by abdominal section and not by aspiration.

Dr. Wolff advises the use of calomel during the early stages of *Pneumonia* on account of its effect on the exudate.

In no other disease than *Pneumonia*, Prof. Wilson says, is the chill at the onset of the disease so constant and severe.

Prof. Keen says *Papillomata*, or warty tumors, very often, during the cancerous age of life, degenerate into epitheliomatous growths.

Prof. Brinton says the adhesive straps in a case of *Fracture of the Ribs* should be applied to the chest during the time of expiration.

Bromides combined with opium, Prof. Hare says, will often prevent the nauseating effects which *Opium* has on many persons.

*Lavage of the Stomach*, Prof. Montgomery says, will sometimes dislodge wind in the small intestines and also set up peristaltic movements.

In cases of *Alcoholism* in which nervous irritability is such as to require chloral as a sedative, Prof. Hare says strychnine should always be combined with the chloral.

The milk of asafœtida, with the addition of a few drops of turpentine and well mixed, Prof. Hare says, will often prove very useful in relieving *Flatulence* occurring in typhoid fever.

Prof. Parvin says *Tuberculosis*, if in the early stage, is often interrupted in its progress during a pregnancy; but if it be in the later stages it will be increased in its progress by a pregnancy.

Prof. Parvin says a *Thrombosis* of the vulva, which is due to varicose veins, should not be opened until at least three days after labor has taken place, on account of the great danger of a hemorrhage taking place, which may prove fatal.

Prof. Hare does not believe that ergot possesses any value in the treatment of cases of *Hœmoptysis*, but that in many other cases it is a powerful drug to administer.

Dr. Da Costa says the *Radical Operation for Hernia* does not, as a rule, prove successful in patients who are past middle life, on account of the atrophy which the tissues have already undergone.

Prof. Parvin says the best local application for *Thrush* in the infant is to freely pencil the patches three to four times a day with a solution of borax, of the strength of twenty grains to the ounce.

Prof. Parvin says if *Leucœmia* develops in a pregnant woman, it is best to terminate the pregnancy early, as the ending of pregnancy seems to exert a favorable influence on the disease.

Prof. Parvin regards the fact that the presenting part, either late in pregnancy or early in labor, in the pelvic cavity is a strong proof that the presentation is neither face nor pelvic, but vertex.

Dr. Parvin says *Albuminuria* in the primigravida occurs generally at the end of the seventh or beginning of the eighth month, while in the multigravida it occurs generally at the beginning of the ninth month.

Prof. Keen says when there are chills and sweats, accompanied by high fever and other signs of the presence of pus in the economy, if no cause can be found the liver should be carefully examined for the presence of an *Abscess*.

Prof. Wilson does not think that caustic applications should be applied to the membrane in *Diphtheria*, nor does he think that the membrane should be detached by the aid of instruments. He prefers the application of a mild antiseptic spray.

The use of purgatives during an attack of *Puerperal Infection*, Prof. Parvin thinks, is seldom advisable excepting in the beginning of a peritoneal inflammation, when it will be beneficial to have a free and copious evacuation of the bowels by the use of salines.

As a spray to the membrane of *Diphtheria*, which will act as a solvent, Prof. Wilson recommends:—

℞.—Olei eucalypti, . . . . f ℥ ij.
Sodii benzoatis, . . . . ℥ j.
Sodii bicarbonatis, . . . ℥ ij.
Glycerini, . . . . . f ℥ ij.
Aquæ calcis, q. s. ad . . Oij.—M.

SIG.—Apply as a spray to the membranes every half hour for from three to five minutes at a time.

## RECENT PROGRESS IN THORACIC DISEASE.

### TUBERCULOSIS AS A CAUSE OF PLEURITIC ADHESIONS.

Schleuber gives the results obtained from 106 autopsies, but 21 of which showed no pleural adhesions. Among the remaining 85 the adhesions could be attributed in a number of cases to affections of the lungs other than tuberculosis, or to cardiac disease. Leaving these cases out of consideration, there remained 57, in 33, or 57.9 per cent., of which the adhesions, from the microscopic examination, could be referred in all probability to a tuberculous cause. Schleuber is of the opinion that these figures would have been increased rather than diminished by the use of the microscope.

### PECULIAR ODOR OF THE BREATH OF TUBERCULOUS PATIENTS.

Rosenbach calls attention to a peculiarity of the breath of tuberculous patients, slightly resembling that of mild cases of putrid bronchitis, but differing from it in having a disagreeably sweet quality. It may become apparent in the neighborhood of the patient even in the absence of expectoration. It adheres to expectorated matter but feebly, being probably dependent on some volatile substances. It is only present in the exhaled air, and thus becomes most evident when the patient coughs or breathes with open mouth. It is a sign of unfavorable prognostic significance, even though the other manifestations in the case appear favorable. It is often present when the destructive process is not marked, and is most noticeable when the physical signs are unobtrusive. It is almost always an associated manifestation of disseminated broncho-pneumonic consolidation. It is wanting in cases of extensive infiltration, when cavities have formed and also when the sputum is copious. In a large number of cases in which this symptom was observed hæmoptysis occurred. Night-sweats, anorexia and febrile exacerbations were also frequently noted. The phenomenon is of diagnostic significance, as it early indicates the occurrence of a morbid process in the lungs, and should therefore be sought for in all doubtful cases. To insure against a possible source of error, the mouth and teeth of the patient should be first thoroughly cleansed.

### THE DISINFECTION OF TUBERCULOUSLY-INFECTED HOUSES.

Delepine and Ransome give the result of their efforts to disinfect rooms in which a phthisical patient has lived by chlorine or more correctly euchlorine. Pieces of paper were perfectly sterilized in glass capsules, and then infected with tuberculous material, either sputum or pure cultivations of the bacillus (human in most cases, avian in a few). The capsules were sealed, the sputum or cultivation being allowed to dry on the paper, and were not opened until just before the acid was poured on the chlorate of potash, and were again sealed when the room was re-opened. Rabbits and guinea-pigs were then inoculated with small pieces of infected paper or superficial scrapings mixed with sterilized bouillon. In nine experiments made with three different kinds of sputum the results were unsatisfactory; in some cases complete disinfection seems to have been obtained, but the control experiments showed that some sputa were not as virulent as others. In six experiments made with pure cultures of the bacilli of human tuberculosis, distinct evidences of the disease were observed within three or four weeks after inoculation. They therefore conclude that this method of disinfection, as well as that with sulphurous acid, which they have also investigated, is ineffectual. From some laboratory experiments with an old method of disinfection (not given) they hope before long to give practical means of effectually disinfecting places that have been contaminated with tuberculous products.

### TUBERCULOSIS OF THE BRONCHIAL GLANDS AND ITS RELATION TO THE TUBERCULOSIS OF CHILDHOOD.

Neumann sums up an interesting paper on this subject as follows:

Tuberculous infection in children is usually at first localized in the bronchial lymph glands. It is very common in the first years of life, and results from inhalation of the infectious material. This method of infection may be prevented by proper hygienic regulations, which, though at times difficult to obtain in private practice, should be demanded in all public institutions. From the bronchial glands infection either rapidly spreads through well-known anatomical paths or it remains latent for an indefinite period, until its activity is finally excited by some condition (catarrh or inflammation of the respiratory tract) in which the glands are secondarily affected. At times, however, it may remain permanently latent or cure result from calcification. Diagnosis is only possible in advanced cases, and only then when the condition of the gland is not masked by affections of other organs. So long as they are simply tuberculous, but not enlarged or adherent to neighboring organs, they give rise to no signs or symptoms, while, on the other hand, the process which started from them may have produced such marked pathological changes in their neighborhood as to conceal the original trouble. Even

when an autopsy has shown that diagnosis was possible, it has not always been made; nevertheless, cases comparatively frequent appear where a consideration of the possibility of an earlier infection (heredity, measles, etc.), combined with the rational and physical signs, makes their presence more or less probable. Especial weight is to be laid on the presence of a peculiar cough resembling pertussis in its paroxysmal character, and the presence of a very loud, indeterminate, though usually bronchial, respiratory murmur in the neighborhood of the upper thoracic vertebræ. The difficulty in diagnosis is well illustrated by a case reported by Stoll, occurring in a girl ten years old, in which the symptoms were so obscure that it was impossible to determine the seat of the disease until the autopsy, which showed a perforation of the trachea on a level with its bifurcation, through which a gland about the size of a walnut emptied itself. Beneath this large one were several others with softened centres. The trachea itself was obstructed by a plug of pus, situated above the perforation, which filled up the whole lumen and was probably the immediate cause of death.

### BRADYCARDIA DURING CONVALESCENCE.

In speaking of the slow pulse (60 or less) which is sometimes met with during convalescence from acute diseases, Dehio says that we have little positive knowledge of the cause of its appearance or the anatomical changes which accompany it. With the establishment of convalescence the pulse falls with the temperature, but the fall continues below the normal rate until its beats number only sixty a minute or even decidedly less. This condition in mild cases lasts but a few days to a week, and, with this exception, the patient presents no noteworthy symptoms. The heart seems normal though the apex beat is weak, the pulse is easily compressed and often dicrotic, at times, also, slightly irregular. In the severe forms, however, the patient shows signs of great prostration, the lateral area of the heart's dulness is increased, its action is irregular and intermittent, and a systolic murmur is heard over the left ventricle. In order to determine whether this resulted from some change in the heart itself or was of central origin, Dehio injected hypodermically one-sixtieth to one-thirtieth of a grain of atropine, which has the power of paralyzing the cardiac terminations of the vagus nerve. In a mild case he found that the number of beats was increased to the same degree as under normal circumstances, while in the more severe forms this increase was much less marked. He therefore concludes that the cause is to be found in the heart itself, and not in some change in the nervous mechanism, such as an increased irritability of the vagus or an atonic condition of the medullary centre of the accelerator sympathetic fibres, and is, therefore, an evidence of cardiac weakness, and of the same import as other symptoms (intercurrent attacks of rapid pulse, irregularity, palpitation) of this condition, many of which were present in his cases. The occurrence of this symptom is comparatively rare as he only met with eight cases in his hospital clinic during the past semester. He suggests the probability of its being due to the toxic action of some specific material produced in the organism during the course of an infectious disease which causes no anatomical change in the heart, but considers it probable that an individual predisposition also exists, otherwise it would be difficult to explain why it was not present in all convalescent patients and why it was not more common after severe infectious cases than after mild ones.

### CURE OF EMPYEMA.

Aufrecht describes his progress through the various methods which have been devised for the treatment of empyema. After an experience with four cases he discarded aspiration as a means of cure, and practised incision and drainage, but has now reached the conclusion that resection of a rib is by far the most satisfactory proceeding, as it obviates the danger of hæmorrhage, allows free exit for masses of fibrin and prevents the too rapid closure of the opening, which by the simpler method could sometimes be kept open only by a silver tube. He selects a rib near the angle of the scapula, unless contraindicated by pleural adhesions or by the very weak condition of the patient. In the latter case he chooses the axillary line, as there is much less chance of death during the operation if the dorsal position be maintained. Beside the preliminary puncture to ascertain the presence of pus, he is accustomed to make a second after resection through the free pleura. He recommends at first daily irrigation. Cure results from the fact that with each inspiration the lung collapsed by the operation must dilate if the size of the opening in the chest-wall is smaller than that of the primary bronchus leading to the part. In addition, however, it is necessary that the pleura itself should be in a condition to allow adhesions to form between its two surfaces. The slow subsidence of the pleural inflammation in some cases to the point where this is possible, explains their occasional protracted convalecence. —George G. Sears, M.D., in *Boston Med. and Surg. Jour.*

---

Prof. Hare says that there is no drug in medicine that will give as much relief as the *Spirits of Chloroform*, in the dose of from twenty to thirty drops, to a patient suffering from abdominal pain; and it possesses also the advantage over opium that it does not constipate.

## SOME PRACTICAL POINTS IN INFANT FEEDING.

Louis Fisher, M.D., in the *Amer. Medico-Surg. Bull.*, says: First, always try to feed the child with "its own" mother's milk. A child may receive both breasts alternately at one meal if the appetite warrants it. Never have a baby fed by the milk of its mother if the latter suffer with general debility or tuberculosis. Extremely nervous mothers should not nurse their babies.

Syphilitic babies (hereditary) can only be nursed by their own mothers, owing to the risk of infecting the wet-nurse, Very frequently the life of the child is dependent on its being nursed by its mother in syphilis.

(*a*) The return of menstruation is no contra-indication to the continuation of nursing.

(*b*) The moment a woman is pregnant nursing should be stopped.

(*c*) Children should not be nursed at night unless for some special reason.

(*d*) Weaning should take place gradually, and only in the eighth to the tenth month.

(*e*) It is understood that weaning should not be commenced during the hot summer weather.

The main factor in determining the time of weaning is "weighing." Children must be weaned when, although in perfect good health, they remain below normal weight.

(*f*) Prolonged nursing (useless) will induce rhachitis.

2.—If, for various reasons, a child cannot be nursed by its mother, we then resort to the wet-nurse.

(*a*) She must be carefully examined as to her physical condition; tuberculosis, all chronic disorders and diseases would prevent proper nursing. Hereditary nervous troubles, epilepsy, syphilis, would exclude nursing.

Milk requires microscopical examination to determine amount of fat, the condition of the emulsion, etc.

(*b*) It is a good point to try to procure a wet-nurse suckling a child about as old as the one we wish her to nurse, although it is quite common to find nurses who have older children than the one they wish to nurse, and to find the latter doing well.

(*c*) The proof of the usefulness of the wet-nurse is the condition of the baby after some time. If the child thrives it will increase in weight. Hence scales must be frequently used.

3.—Artificial substitutes for breast milk:

(*a*) Never give any food preparation containing *starch* during the first three months.

*Cow's milk.*—There is a great difference between human and cow's milk—hence we must dilute accordingly.

Dilute—in order to make it as near mother's milk as possible—by adding substances which will make the milk easily digestible and not curdling.

Alkalis and acids should not be used, or only to correct pathological conditions. Add farinaceous substances:

(*a*) Oatmeal gruel where constipation exists.

(*b*) Barley gruel where tendency to diarrhœa exists.

It is advisable to use shells of the cereals, as they contain a certain quantity of albuminoids.

Sugar is added by using sacch. lactis; salt is added by using ordinary table salt.

Certain dangers of feeding by cow's milk, and their avoidance:

Possible transmission of tuberculosis, owing to which fact it is advisable to feed from several cows and not from a single cow—contrary to the general opinion.

The milk must be boiled, and thoroughly so, in order to destroy one of the most frequent contaminations, namely, micro-organisms.

Boiling methods have been improved upon by introduction of sterilization by Prof. Soxhlet, and since then by partial sterilization called pasteurization.—*Med. and Surg. Rep.*

---

Treatment of Peurperal Convulsions by Hypodermic Injections of Salt Solution.—The above mode of treatment of puerperal eclampsia is the one now adopted in the lying-in wards of the Lariboisière Hospital by Dr. Porak, physician-accoucheur of that institution. The salt injections are said to act beneficially by mechanically diluting the toxines in the blood and by favoring their elimination through the kidneys, the secretion of which the injections re-establish or increase. The quantity and quality of urine passed in these cases is, in fact, of great prognostic importance. When the urine is abundant and limpid the toxemia is mild, and the physician may trust to symptomatic treatment by means of chloroform and chloral administered simultaneously. (Six successful cases of this kind are cited in the recent thesis by Dr. Bernheim, one of Dr. Porak's pupils.) In every case, however, where the urine is either completely suppressed, or is scanty and dark colored, recourse must be had to salt water hypodermics, either singly or associated with venesection. In Dr. Porak's wards the *modus operandi* is as follows: The solution employed for each injection is one liter of sterilized water, to which have been added from seven to seven and a half grams of chloride of sodium. This is poured into a hand-spray apparatus of which the longer tube ends in a hollow needle; or a syphon apparatus may be employed. The solution must be maintained at a temperature of from 37-5° to 38° C. The skin of

one of the buttocks having been carefully disinfected, the needle is plunged into the areolar tissue and the salt solution is introduced. The parts near the needle quickly become indurated and the skin becomes pale. Gentle massage is practiced to favor absorption. In this way one liter is injected, the operation occupying twenty minutes. Should distension become exaggerated before the injection is completed, the residue of the liquid is introduced into the other buttock. This novel treatment has been tried on eight patients, in all of whom the urine was scanty. Seven were eclamptic and the eighth suffered from dyspnœic form of uræmia. In each instance one or two salt injections were the means of re-establishing the urinary flow and of suppressing more or less promptly the convulsions and the dyspnœa in the uræmic woman. Six patients recovered. Of the two women who died, one was admitted in a moribund state, and the other, in whom the attacks had ceased and consciousness had returned, had died at home, where her husband had obstinately insisted on removing her.—*The Lancet.*

THE THERAPEUTICS OF GLYCOZONE, COMPOSITION AND CHARACTERISTICS.—Glycozone is defined by its discoverer, Mr. Ch. Marchand, to be a stable compound, resulting from the chemical reaction that takes place when c. p. glycerine is submitted, under certain conditions, to the action of fifteen times its own volume of ozone, under normal atmospheric pressure at a temperature of 0°C.

The necessity of using c. p. glycerine is imperative, as a presence of the water or other foreign matter in the glycerine causes the production in the resulting compound of formic acid, glyceric acid, and other secondary products, that have a harmful effect upon animal tissued.

Glycozone has a pleasant, sweetish taste. Being hydroscopic, it must be kept in tightly-corked bottles, and, as long as it is kept in this condition, it does not deteriorate at a temperature of even 100°F.

*Antagonists and Incompatibles.*—Glycozone, like peroxide of hydrogen, is a powerful oxidizing agent, although its action is not as rapid or as energetic in this respect as the latter compound. Consequently, we cannot safely prescribe it combined with any other drugs or chemical substances. Contact with metallic utensils decomposes it. We must, therefore, use glass or hard rubber vessels and syringes when administering it.

*Physiological Action.*—When taken into the mouth and stomach, glycozone causes a feeling of warmth. It excites a flow of saliva and stimulates the gastric secretions. Being hygroscopic, it attracts to itself water from the surrounding tissues, but not with sufficient power to effect harm. This property is due solely to the glycerine base which enters into the composition. In very large doses, one or two ounces, it causes a feeling of distress in the epigastrium, and is followed by loose, copious, watery stools, which are accompanied by severe cramps.

No effect is noted on the kidneys, the liver or the heart. Glycozone is undoubtedly slowly decomposed in the stomach, ozone being liberated and the glycerine uniting with the water from the tissues. The morbid elements with which it comes in contact probably hasten this decomposition, and in so doing are themselves oxidized and destroyed. The free ozone in the stomach resulting from the decomposition of glycozone aids the digestive process by its presence.

*Therapy.*—Glycozone is, in the opinion of the writer, the best known agent for the treatment of gastric ulcer. It is also one of the best remedies for the treatment of the stomach catarrh of chronic alcoholism, and for chronic gastric catarrh from other causes. It is excellent for atonic dyspepsia, and for acid dyspepsia. The writer has seen very gratifying results from its use in these distressing maladies.—Cyrus Edson, M. D., in *Times and Register.*

A NEW METHOD OF USING POLITZER'S APPARATUS.—Those who have had occasion to use the Politzer bag to inflate the middle ear are well aware how difficult it is to cause the patient to swallow at the proper moment.

The general custom is to ask the patient to sound certain vowels or to swallow a mouthful of water, because in uttering these sounds, and during the act of deglutition, the soft palate is applied to the posterior wall of the pharynx. The fact remains, however, that the naso-pharyngeal cavity is only partially excluded by these means, and then only for a most brief—frequently too brief—period.

As the Politzer method of clearing the Eustachian tube is frequently of material importance, it may not be amiss to call attention to a novel and more simple way of preventing the air insufflated into the nose from escaping through the pharynx instead of passing into the tympanic cavity, suggested by the *Medical Press and Circular*, as follows :

"As the clearing of the Eustachian tube is now very much in vogue, and, moreover, in many instances very essential to the treatment of certain diseases of the auditory apparatus, it may be well to mention a novel and more simple method of attaining the object in view as arrived at by Doctor Boydan, in the *Medical Times and Hospital Gazette.* This gentleman suggests that the patient be directed to take a deep inspiration and then slowly blow out the air through a small aperture between the closed lips."

The *rationale* of procedure is that, so long as

the patient blows, the velum palati remains in contact with the posterior wall of the pharynx, and Politzerization can be performed without the slightest difficulty.—*Med. Age.*

A Bloodless Operation for Hæmorrhoids.—Manley, *Boston Med. and Surg. Jour.*, has examined the rectum in a considerable number of cases, both dead and living, where the gut was supposed to be healthy, and has found in more than 50 per cent. venous varices of the rectum. He considers that the hæmorrhoidal dilatation in man is a physiologically degenerate condition, which in late life is a source of no inconvenience, but which at middle age is often attended by or associated with such complications as to render it a distinct pathological lesion. He says that this view is supported by the fact that cutting out, injecting, or ligating off sundry hæmorrhoidal masses will not in all cases cure the disease. When an operation is requisite he recommends that the following be performed: First, the bowel is emptied by a purgative given the evening before, and on the morning of the operation the parts are thoroughly cleansed and made aseptic. Then a solution of cocaine is injected subcutaneously so as to render the anal region anæsthetic. The sphincter is then dilated in the usual way and the hæmorrhoidal masses carefully dried. Each hæmorrhoid is seized separately, close to its base, firmly between the tips of the thumb, index, and middle fingers, first put on a moderate but full stretch, then twisted, and finally so completely crushed that it is reduced to a pulp and none of the investing tunics remain except the mucous membrane and its under stratum of fibrous tissue. When this has been completed the entire mass is pressed up inside the sphincter, a suppository of opium introduced, a pad and bandage applied, and the patient returned to the bed. An active but painless inflammation follows, and in two or three weeks atrophy and absorption have so reduced the vascular masses that nothing remains but their shrunken stems. Thirty-two cases have been treated in this way, all with very satisfactory results, recurrence apparently not taking place. For this operation the author claims the following advantages: (1) The operation may be performed with a less number of assistants, and is very simple in its *technique*. (2) As there is no division of the tissues the danger of infection, of abscess, ulceration, and fistula are eliminated. (3) There is no danger from the immediate loss of blood during the operation, or of serious secondary hæmorrhage. —*Brit. Med. Jour.*

Therapeutics of Viburnum Prunifolium.—As a uterine tonic, black haw has no equal; it is specific in preventing abortion, and if the waters have not broken it accomplishes the desired result. In habitual abortion it does not always succeed the first time, but by continuing its use it usually succeeds the second time.

In one case a lady had miscarried four times. The fourth time she used viburnum without results. The fifth time the agent was used, and the catastrophe was averted at the fourth month. But during the next two months the patient did not feel well, and decreased in size instead of increasing. At the expiration of that time, pains came on, which were encouraged, and the woman delivered of a small fœtus fully two months dead *in utero*.

In another case the fœtus died at from three to five months in each of three pregnancies, and the death was announced from two to four weeks later by the tendency to miscarriage. This could be checked by viburnum, but the agent was withdrawn the third time for obvious reasons. The lady is now three months pregnant, and is being fed with concentrated foods and the compound phosphates to preserve the life of the fœtus.

Viburnum is efficacious in dysmenorrhœa of whatever character. It is safe and reliable in after-pains, promoting involution. Goss gives viburnum at the time of the painful period. Wood claims there is danger of increasing the uterine contraction by large doses, but this has never been observed, though its marked effect in checking uterine hæmorrhage frequently has been manifested. He gives the agent in smaller doses, and claims equally good results; he advises one-drop doses in singultus. Schatz, on the contrary, believes that large doses decrease uterine contractions.—*Chicago Medical Times.*

A New Pathology and Treatment of Nervous Catarrh.—*Jour. Med. Association.* The writer believes that hay fever is due mainly to an excess of uric acid in the blood, and has treated cases on this theory, with good results. By doses of acid at night and in the morning, the matinal attacks of sneezing and nasal stenosis were broken up. Dilute sulphuric acid was first tried, but acid phosphate was found more satisfactory. Nitro-glycerin, nitrite of sodium, nitrite of amyl, etc., produce parallel effects. Opium, iron, and lead diminish the alkalinity of the blood and reduce the amount of uric acid. Quinine is contra-indicated. For temporary use in the beginning of nervous catarrh or common colds a mixtnre of atropine and morphine, one part to fifty, is valuable. The ordinary adult dose of this mixture is one-sixteenth to one-eighth of a grain, repeated in an hour or two if the dose does not relieve the sneezing and the other symptoms. The author dispenses the remedy so that its composition is not known to the patients. As a spray a solution of camphor and menthol, one to three per cent. in benzoinol, is recommended. The patient

should avoid, as far as possible, meats, sweets, beer, wine, etc., limiting the diet largely to fruits, vegetables, milk, etc. From two to six grains of salicylate of sodium every day or two for two weeks to a month before the regular hay-fever season, will keep the acid in the body down to the normal amount. Any local organic disease should receive appropriate treatment.—*Internal. Jour. Surg.*

SULFONAL IN THE TREATMENT OF THE INSANE.—Dr. John N. Scally (Maryland Hospital for the Insane) reports as follows, concerning the action of sulfonal:

"In treatment at this hospital, sulfonal has been used for its hypnotic effects in the stages of excitement during attacks of acute mania, mania following epilepsy, recurrent mania, chronic mania, and also in melancholia.

"It has not been our custom to give it regularly every day, but only at those times when, owing to the extreme restlessness and motor excitability of patients, sleep is denied them. In the management of acutely maniacal patients just admitted, when it is necessary to secure immediate rest, and, as is often the case, when the patients' very lives demand it, sulfonal has not failed in any case in which it has been used. Given in drachm doses, preferably in whisky. Not only has it secured from six to eight hours of sound sleep, but it has produced quite a decided amount of motor sedation, lasting from eight to twelve hours after waking. In each case sleep was obtained within one hour after administration, and in none was any bad after-effects noticed.

"Three of our cases, two being acute mania and one epileptic mania, furnish evidence of the value of sulfonal as a prompt and reliable hypnotic, when given in sufficiently large doses. In the first two cases, both patients had been given morphine injections and other hypnotics by their family physicians, with no appreciable effect. In both cases sulfonal acted promptly. In the third case, sulfonal was found to act much more promptly than bromidia, paraldehyde or morphia, all of which had been previously given."—*Albany Med. Annals.*

PEROXIDE OF HYDROGEN IN CONJUCTIVITIS.—Lautenbach, *Therap. Gazette*, advocates the use of peroxide of hydrogen in conjunctivitis. He has been quite successful in the treatment of this troublesome disease, by the following method: From 10 to 30 drops of the solution, full strength, is instilled at the outer canthus of eye, and with the fingers a degree of massage is applied over the entire surface of both eyelids. A second, third or fourth application can be made if necessary. In trachomatous cases the eyelids should be everted and rubbed with rubber end of the eye-dropper. A saturated solution of boric acid is then used to irrigate conjunctival cul-de-sac. The inflamed surfaces are thus cleansed and ready for whatever application is necessary. The treatment is not intrusted to the patient but is performed by the surgeon himself, once or twice a day, or a few times a week, according to indications. Dr. Lautenbach says it is important to have peroxide test beyond ten volumes, that it should not lose its oxygen on slight change of temperature, and most important of all, that it should not contain any free acid. Undue amount of free acid causes pain and untoward effects. On account of the uncertainty of preparations fit for use, Marchand's should always be procured. The lids should be everted and thorough exposure of conjunctiva had, it is then cleansed by warm solution of boric acid.—*Med. Fortnightly.*

"Doc."—If it has been your misfortune to be called "Doc," and if this recognition has become at all general among your friends, you might as well move to some other place. A man may be called a thief, a liar and a dead beat, and yet he may prosper and live upon the fat of the land. But once let him be called "Doc" and his professional success is at an end. We would prefer to spend a night in the station house, so far as our professional success is concerned, rather than to have our friends notice our approach by saying, "There comes Doc." If a man calls you "Doc" you need never expect a penny from him for any professional services you could render. His answer is sure to be, "All right, Doc, in a few days that will be all right." "Doc" means disaster. "Doc" is the culmination of all calamity. "Doc" is a catastrophe given at one stroke. "Doc" is the warning that we have reached the extreme limit of our usefulness. "Doc" is the hand which points us to the next town. Shun it, my young friend, as you would flee from a Kansas cyclone or a prairie fire. Knock the man down who first dares speak it to you; and call upon the whole medical profession for vindication of your righteous deed.—*National Med. Review.*

SANMETTO IN CYSTIC AND PROSTATIC TROUBLES and in diseases of the mucous membrane of a chronic character. I have not been in the habit of endorsing proprietary medicines, but *Sanmetto* is such an elegant pharmaceutical combination, that I must make an exception in its favor. I have used several bottles of it in my practice, and have obtained most gratifying, and I may say, *surprising* results. In cystic and prostatic troubles it will not disappoint the practitioner. I have found it useful in all diseases of the mucous membranes of a chronic character. I could not get along without it.—IRA D. BROWN, M.D., Woodsport, N.Y.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, MAY, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## MENSTRUATION.

In a paper by Dr. F. Curtis, of New York, which opened the debate on Menstruation at the late meeting of the New York State Medical Society, the author stated that the influence of menstruation is a possible factor in most of the morbid conditions to which women are subject between the periods of puberty and the menopause. Its importance has been more than ever appreciated since the development of the art of abdominal surgery. The evolution of animal life from the lower to the higher signifies increased complexity of structure and function. The differentiation of the genital organs in individuals of separate sex begins very early in the scale of animal life, and the functions connected with those organs become most marked as we ascend the scale. The phenomena connected with the impulse to reproduction are as clearly defined as any in the entire range of animal activity, and demonstrate the important relation which that impulse bears to physical existence. Changes in behavior and appearance signalize its presence in the highest and the lowest animals. In the higher mammalia there is also a discharge of mucus or mucus and blood from the genital passage. In the apes and monkeys the discharge from the genital passage is periodical, and suggests menstruation. In women there is not only the reproductive impulse and the bloody discharge, but there are recurrences at regular and relatively frequent intervals. There may also be the reproductive impulse and impregnation without the bloody discharge, almost immediately after the conclusion of a previous pregnancy, and there may even be the continually recurring bloody discharge without the reproductive impulse. There has been much speculation as to the cause for the recurrence of menstruation at monthly intervals. Pouchet, Pflüger and others have propounded theories in explanation. The ovulation theory seems reasonable in many cases, but is not of universal application. A satisfactory explanation is yet to be afforded. Menstruation is one of the evidences of womanhood, but not the only one. A woman who does not menstruate, or who has never menstruated, is physically defective, but the defect is not necessarily irremediable. A woman who has never menstruated should not marry until the cause has been ascertained, and if possible removed.

An analysis of 200 cases in the writer's records, gave the earliest period as ten and the latest as twenty years. The average for the 200 cases was 14.5 years. No function of the body shows a wider range and variety of phenomena than menstruation, none is more frequently disturbed. This is probably due to the complex conditions of civilized life, for the variations are few where civilization is absent. Increase in the blood tension of the pelvic circulation is an almost invariable accompaniment of menstruation. The vessels of the endometrium offer the least resistance, hence the discharge of blood from this source. With the blood is mingled débris from the broken vessels, epithelium from the uterus and vagina, and glandular secretion. These are the products of menstruation. The duration of menstruation is subject to many fluctuations, and has almost as many types as the number of days which it consumes. A complete menstrual period includes, not only the flow, but the *molimena* or accessory phenomena, which may precede the flow by many hours.

In the one-day type the blood is scanty and watery, and there is usually pain in various localities. It occurs in women with imperfectly developed genital organs in those who are anæmic and physically weak.

In the two-days' type the blood may be abundant and of natural appearance the first day, while the second it may be scanty and watery. Pain is usually present as in the one-day type.

In the three-days' type the conditions as to flow may be quite natural and normal from beginning to end, the menstrual wave advancing to its maximum and then receding. There may or may not be pain. Profuse hæmorrhage seldom occurs.

In the four-days' type the conditions may also be quite normal as to flow, pain, and general or local disturbance. But there are also cases in which the hæmorrhage is abundant, the uterus being the seat of disease of greater or less extent. Pain is seldom a prominent feature. The type which continues five to seven days is not usually as marked as the preceding ones. The last day or two are often marked by very little loss of blood. In some cases there is a cessation of the flow on the third or fourth day, then an interval of a few hours, and then another period of flowing lasting one to three days. If the flow is profuse lasting five to seven days, or longer, uterine disease of a more or less serious character is likely to be present.

With women who are in robust health and without physical deformity, the discharge of blood may be the only intimation that anything out of the usual course is transpiring, but with vast numbers of women in civilized life, menstruation means not only a discharge of blood in greater or less abundance, but a multiplicity of attendant discomforts and annoyances, which may amount to intense physical or mental suffering. The unpleasant sensations or *molimena* are due mainly to the combined action and reaction of the vascular and nervous systems, especially to undue vascular tension and congestion. Thus we obtain the well-known variety of sensations in the pelvic organs, liver, kidneys, stomach, intestines, brain and skin. The mental functions, digestion, secretion and assimilation may also share in the disturbances, and the statement of the far-reaching possibilities of menstruation for annoyance is sustained. This should teach us to be on our guard, and anticipate if possible, the evils which may arise, keeping the patient under the most favorable conditions possible before and during the entire peformance of the menstrual function. The family physician should devote more attention than has heretofore been the custom, to instructing those who are under his care concerning the precautions which they should exercise with respect to menstruation. The common errors and imprudence in that direction should no longer be allowed, without his vigorous and persistent protest.

## THE PREVENTION OF PHTHISIS.

"One of the most striking features of the age is the rapidity with which new ideas are established. The theory which is timidly advanced to-day, becomes the accepted doctrine of to-morrow.

"It will be interesting to the workers of fifty years hence to note what were our ideas at the present time, thirteen years after the discovery of Koch's bacillus, with regard to the prevention of phthisis." Thus writes an observer in the *Medical Press and Circular*, March 14th. It is a strange fact that notwithstanding the prevalence of the disease, and the attention which its study has attracted, the true nature of the disease has been but recently understood, and brought under the search-light of science. The lectures of the last generation were clever clinical pictures of the disease, but gave no hope in treatment. This is now changed, and phthisis is singled out as one of the early conquests of preventive medicine. Such a result has been brought about by several factors, among which the following are chief:

First, the registration of deaths, making it possible to study disease in a mass. Secondly, the great experimental advance made about 1840, which proved that tubercle could be reproduced in animals inoculated with tuberculous matter. Then came the crowning discovery by the illustrious Koch, which clearly demonstrated the fact that tuberculosis depended for its existence upon a specific bacillus. Not much can be said about the value of curative measures in this disease; the most important results of research lie in the impetus given to the study of its prevention. It is well known that tubercle bacilli exist in the dust of rooms inhabited by consumptives, that the organisms exist in the flesh and milk of infected animals, especially cows, that the sputa of consumptives is scattered broadcast, and is probably a source of infection to man and animals.

Guided by these and other considerations, the attacks of sanitarians have been mainly directed against the micro-organism as the root of the evil. Infected clothing has to be sterilized, while ordinary handkerchiefs have to be replaced by paper, which is afterwards destroyed. All sputum is destroyed after being collected in cups charged

with some efficient antiseptic. Sanitary authorities advocate a vigorous inspection of markets and dairies, with power to destroy infected food supplies. The idea that phthisis should be notified as an infectious disease has been before the sanitary world for some years, and some are going so far as to advocate the prohibition of marriage where a phthisical tendency exists. It would seem from the standpoint of our present knowledge of the disease, that the only hope of eliminating this scourge from our midst, is by taking as our guide the motto, "An ounce of prevention is worth a pound of cure."

## MEDICAL EXAMINATIONS.

### TRINITY MEDICAL COLLEGE.

*Final Fellowship Degree.* Certificates of Honor.—Candidates who obtained 75 per cent and over; Prosper D. White, T. G. Devitt, Geo. H. Field, James Semple, A. K. Ferguson, C. B. Shuttleworth, A. L. Danard, H. R. Frank, Thos. Kerr.

*Sixty per cent. and over.*—T. M. Manes, C. D. Parfitt, C. C. Field, J. McMaster (B.A.), E. L. Procter, J. L. Bradley, W. H. Millen, H. E. Armstrong, J. T. Somerville, H. D. Livingstone, W. W. McQueen, S. H. Murphy (B.A.), M. S. Lane.

*Passed.*—D. Thomson, R. R. MacFarlane, C. H. Thomas, C. M. Kingstone, A. G. Ashton Fletcher.

Dr. Sheard's prize in Physiology for the first year, J. S. McEachern.

*Scholarships.*—The 1st First Year's Scholarship, $50, J. S. McEachern; the 2nd First Year's Scholarship, $30, C. A. Campbell; the 3rd First Year's Scholarship, $20, F. A. Scott; the 1st Second Year's Scholarship, $50, J. R. McRae; the 2nd Second Year's Scholarship, $30, V. A. Hart.

*Medals.*—The Second Trinity Silver Medal, Geo. Henry Field; the First Trinity Silver Medal, Thos. G. Devitt; the Trinity Gold Medal, P. D. White.

### TRINITY UNIVERSITY.

M.D., C.M.—*Class I*—Gold medal and certificate of honor, C. B. Shuttleworth; silver medal and certificate of honor, C. D. Parfitt.

*Certificates of Honor.*—A. L. Danard, A. K. Ferguson, *æq.*; H. R. Frank, S. H. Field, T. G. Devitt, J. S. Goodfellow, E. L. Procter, *æq.*; J. L. Bradley, C. C. Field. *Class I*—T. Kerr, J. McMaster, J. Semple, *æq.*; H. E. Armstrong, J. D. Windell, H. N. Rutledge, *æq.*; J. R. Mencke, W. H. Millen, M. Baker, H. D. Livingstone. *Class II*—S. H. Murphy, C. H. Thomas, M. S. Lane, J. D. Leith, T. C. Hodgson, D. A. McClenahan, W. H. Scott, J. Park, J. T. Somerville, F. W. Smith, C. M. Kingstone, P. D. White, E. R. Brown. F. A. White, A. Galloway, T. Agnew, W. W. McQueen, J. S. Matheson, E. D. Graham, A. G. A. Fletcher, T. A. Manes. *Class III*—H. H. Sinclair, Miss J. S. Shirra, G. M. Ferris, W. B. Boyd, Miss N. Rodger, D. Thomson, R. R. Macfarlane, W. H. Alexander, S. N. Insley, Miss G. W. Hulet, T. Wickett, T. W. H. Young, F. S. Nicholson, W. J. Bray, Miss E. A. A. Burt, W. A. Ball, W. W. Bredin (M.B., 1873).

### M'GILL UNIVERSITY.

*Final Examination for M.D., C.M.*—A. T. Bazin, W. G. M. Byers, A. R. Colvin, A. Davidson, R. E. Davis, W. F. Drysdale, A. S. Estey, J. W. Evans, W. Ferguson, E. S. Fowler, F. M. Fry, B.A., J. A. Fulton, C. W. F. Gorrell, G. Hamilton, J. P. Hanington, E. C. Hart, W. Henderson, W. G. Hepworth, P. A. Holahan, B.A., H. M. Jacques, J. F. Kearns, H. McL. Kinghorn, B.A., W. O. Lamly, J. F. Lewis, G. S. MacCarthy, J. McCrea, J. T. McLaren, J. A. McLaughlin, C. M. McLean, L. Y. McIntosh, L. F. McKenzie, G. H. Manchester, G. H. Mathewson, B.A., W. Mitchell, A. C. Nicholls, M.A., E. J. O'Connor, C. L. Ogden, B.A., J. Pritchard, B.A., J. Reeves, A. Richardson, H. J. Richardson, F. E. Rimer, A. A. Robertson, B.A., D. W. Ross, H. Ross, J. J. Ross, J. H. Scammell, W. H. Scott, E. M. Sharpe, H. S. Shaw, A. T. Shillington, W. A. Stenning, R. D. Wilson, G. G. L. Wolf, B.A., H. E. York.

*Honors, Medals and Prizes.*—The Holmes Medal, Andrew Armour Robertson, L.A., Montreal, Que. The Final Prize, Albert George Nicholls, M.A., Montreal, Que. The Primary Prize, William Nassau Kendrick, Spring Valley, Minn. The Sutherland Medal, Dougall Robins, B.A., Montreal, Que. The Clemesha Prize, Allan Davidson, Burns, Ont.

*Professors and Demonstrators' Prizes.*—The

Botany Prize, J. G. McDougall, New Glasgow, N.S. The Clinical Chemistry Prize, A. A. Robertson, B.A., Montreal. The Obstetrics Prize, L. Y. McIntosh, Strathmore, Ont. The Senior Anatomy Prize, R. O. Ross, B.A., Margaree, Ont. The Junior Anatomy Prize, C. B. Keenan, Ottawa, Ont.

## Correspondence.

LONDON MEDICAL SOCIETY,
London, April, 6, 1894.

*To the President and Members of the Ontario Medical Council:*

GENTLEMEN:—The London Medical Society hereby appeals to the Medical Council to devise, if possible, some means of abolishing or restricting the system of contract or lodge practice.

This Society, in common with the profession in general, recognizes the necessity of some steps being taken to check this evil. The Medical Council has rendered valuable service in protecting the profession and the public from *unlicensed* practitioners. There has, however, grown up within the ranks of licentiates themselves this pernicious system which is making greater inroads upon the field of regular practice than all forms of quackery combined; and this Society but voices the current sentiment of the profession in condemning the system, and appeals to the Council as the guardians of the profession to adopt some means of abolishing or minimizing the evil.

The Society begs to offer the following suggestions:

1. Apply for legislative authority to prohibit contract practice. With the prevailing contract rates at $1 and $1.50 per member this prohibition might be shown to be in the interest of the public as well as the profession, inasmuch as indifferent service is a natural result of inadequate remuneration, or,

2. Apply for legislative power to fix a minimum tariff of contract rates. The Dominion Medical Monthly for December, '93, claims on the authority of a distinguished actuary, that the proper remuneration for contract practice in Canada is $4 a year per member, or,

3. Apply to the legislature for power to frame and enforce a code of medical ethics, with a view to control the evil, or,

4. Address an appeal to every registered practitioner to discountenance the system. The influence of such an appeal coming from the redresentative body of the profession, would tend to bring the practice into disrepute.

Signed on behalf of the London Medical Society,

J. H. GARDINER, M. D.,
*President.*

OCTAVIUS WELD, M. D.,
*Secretary.*

CONFUSION OF GASTRIC AND INTESTINAL DYSPEPSIA.—Prof. Germain Sée, *La France Médicale*, that a third of those patients who were thought to be dyspeptics, and their trouble of stomachic origin are actually sufferers from intestinal disease. This holds good, especially in women, for a careful examination both by physical and chemical diagnostic measures reveals good gastric function and no dilatation, while they have gone from one physician to another and have been treated for dyspepsia. These dyspeptics are not suffering from a gastric disease, for their whole trouble lies in the intestine, and pre-eminently in the large intestine, *Med. and Surg. Rep.* It deserves the name of muco-membranous enteritis. The small intestine in such cases is healthy. The muco-membranous enteritis is characterized by disturbances in the functions of the colon, gaseous fermentation, dilatation of this intestine, but nothing reveals it with certainty other than the passage of mucous, glairy, ribbon-shaped or cylindroid masses, with the feces often unperceived. These mucous products are also frequently accompanied by the hardened residue of undigested food. Treatment consists in evacuation by mechanical means, as olive oil or senna, but not by purgation, calming the pains by the bromide of calcium or strontium or cannabis indica, but not by opium and its preparations. Fermentation and the formation of gas may be limited by the phosphate, the biborate or the salicylate of soda, never by benzo-naphthol. The diet is that of one in health, except that the presence of habitual constipation or incidental diarrhœa alter it. In general, hearty foods, as ham, pork, game, boiled eggs, are easily digested, while milk is tolerated with difficulty. Potatoes, either mashed or boiled, as well as rice, are easily digested, though fruits are of

no advantage. Water and tea are permissible as beverages. Gaseous waters are contra-indicated on account of their containing carbonic acid gas. Alcohol, being in large measure absorbed by the stomach, is best left alone, unless temporarily, when digestion is bad. Then a hot sling is of service, while red and white wines are not to be allowed.

THE LONGINGS OF PREGNANT WOMEN.—Arthur Giles, M.D., says *N. Y. Jour. Gyn.*, that "longings" fall into two ancient divisions according as the objects longed for are :—(1) Natural and healthy ; (2) unnatural and unhealthy.

The former class is here alone considered, the data being based on particulars of 300 cases.

The popular view of longings is stated, and the principal foods longed for are tabulated, to ascertain the relation between sickness and longings in general, and various classes of foods in particular.

Three explanations of the causes of longings :—

1. That they are due to a desire for something to check the feeling of nausea. This applies especially to sour things.

2. That they are the expression of an instinctive want for some class of food in the altered condition of pregnancy.

3, The author thinks, that in many cases they are due to a kind of auto-suggestion prompted by a popular tradition, and gives evidence in support of this view.

It was shown by a table that the frequency of longings markedly decreases as parity increases.

This view receives support from several considerations :—

1. The better educated among the women had longings much less frequently than the others.

2. Among primipara, longings occur in twenty per cent. more cases among married than among single women.

3. Among married women, longings occur just twice as often during the first pregnancy as in the second, third or fourth ; while there is a steady diminution of frequency of longings as parity increases, till among women with ten or more children longings are quite exceptional. I only found one in thirteen of such cases.

And so, while a certain number of cases of longings are probably rightly explained on physiological grounds, I think that a certain other number are more properly regarded as due to a superstitious tradition. As far as concerns the mother's longings merely, the popular idea is no doubt harmless enough. But in view of the ignorance that prevails as to the feeding of infants, and the already too great infant mortality, it becomes important that a belief, which allows of infants a few days old being fed on pork, fish, lobsters and even more unnatural things, should be discouraged.

THE DANGERS OF HYPNOTISM.—Prof. Grainger Stewart, of Edenburgh University, in discussing the merits of hypnotism as a therapeutic agent, lays down the following propositions, *Hosp. Gaz.* :—1, That hypnotic conditions of all varieties are practically a diseased state of the nervous system, an artificial neurosis ; 2, that hypnotism is undoubtedly able to modify certain morbid processes of the nervous system, particularly those of a functional kind ; 3, that in certain conditions results undoubtedly favourable, at least for the time, had been obtained by hypnotic treatment ; but, 4, that in every case hypnotic treatment involves hazard to the nervous system, that those who are most susceptible to its influence are the most apt to suffer, and that though it might free the patient from one set of symptoms it is apt to make him the victim of many others. He considers that hypnotism should be employed very rarely to a very moderate extent, and only after careful study of the patient's condition. We would even go farther than Professor Stewart, and say that no one should employ hypnotism as a therapeutic agent under any circumstances.

RESTRICT MEAT IN EPILEPSY.—Dr. William H. Thompson had long thought, *Med. Rec.*, that more light could be thrown upon the subject of functional nervous diseases by chemistry, than by pathological anatomy. The striking feature of intermittency pertaining to functional nervous diseases, such as epilepsy and migraine, certainly deserved study. It was in marked contrast with what was observed in organic nervous diseases. Considering these facts, he had always felt a great interest in the question of anto-infection from the alimentary canal in functional nervous disorders. For years it had been his custom to inquire carefully into the condition of the intestinal functions in epileptics. One of the first questions he put

was, whether the patient's breath was offensive before, during or after an attack, and in about 30 per cent. of the cases, the friends had given an affirmative answer. In about 40 per cent. there had been evidence of flatulence and other intestinal disturbance; in a small per cent. there had been diarrhœa. Treatment based on this knowledge has given considerable encouragement. Regarding the diet of epileptics he has been in the habit for years of cutting off nearly all flesh food, relying on milk for the nitrogenous element, especially in the form of matzôon or fermented milk, and a moderate amount of vegetable food. Peas and beans increase the albumin in the urine in chronic Bright's disease, and are apt to aggravate any renal trouble. Probably beans increase intestinal purefaction, aggravate kidney troubles, and enhance the dangers of convulsive nervous disorders. There is a great difference between nitrogenous food as found in milk and in flesh. The fact that almost all carnivorous animals die in convulsions, and that the feline tribe are peculiarly liable to fits, gives some reason for believing that a meat diet is not favorable for epileptics.

CYSTITIS IN WOMEN.—*Am. Jour. of Gyn.*—Brandenburg Treatment.—In the way of prophylaxis, the first great requisite is a thoroughly aseptic catheter. The example set by Küstner at the lying-in hospital at Jena is worthy of imitation by all. He uses a catheter made of common glass tubing, open and carefully smoothed at both ends; annealed and slightly curved at the proximal end for entrance into the urethra, and more strongly curved at the distal end, so as to easily receive the urine in any appropriate vessel. Since the introduction of the above simple invention, the occurrence of a case of septic cystitis at Jena has become a *rara avis*. Each patient has her own catheter, which after use can be easily and thoroughly cleansed. Irrigation of the vesical cavity is nesessary when the cystitis does not improve under medical treatment, when it is chronic or when it is due to the introduction of septic material into the bladder. In mild cases, several irrigations weekly are sufficient; but in severe cases it may be necessary to irrigate every few hours. In the milder, use solutions of boracic acid, or weak solution of silver nitrate, the latter always followed by a solution of sodium chloride, to neutralize the action of the caustic; in the more severe cases use a stronger solution of the silver nitrate. In acute cystitis a restriction of diet is necessary, but in chronic cases the most generous diet possible should be given to build up the constitution and strengthen the patient; giving her an abundance of fresh air with moderate exercises.

SYMPHYSEOTOMY. — Varnier sums up, *Annales de Gyn. et Obstet.*, the present status of symphyseotomy by tabulating 124 cases as follows:—Mothers, 112 recovered; 12 died. Children, 92 lived; 32 died. Of the mothers, eight died from causes clearly disconnected with the operation. Of the remaining four, one died of septicæmia; one of sphacelus of the vulva and vagina; one of cellulitis and peritonitis, due to the use of a saw and to forcible introduction of the hand and arm in order to obtain version; one of hæmorrhage and shock of operation and of laceration of the perinæum, vulva and bladder. In regard to the infant mortality, five cases should be eliminated where the operation had been done in place of embryotomy; 97 cases of living children remain. Of the 27 remaining deaths, seven were due to causes not results of operation; 11 to mishaps with forceps, or in version; seven in succession to incomplete section; one to prolonged extraction due to distortion of the right arm; one to cerebral lesion due to prolonged pressure on the head.

*Conclusion.* — 1. The operation, properly performed, does not entail immediate or consecutive disorders of the sacro-iliac synchondroses. 2. In pelves not extremely contracted, the enlargement resulting from the operation is sufficient for a living child at term to pass through. 3. The finding and cutting of the symphysis presents no great difficulties; only three cases out of 125 are reported where the operation has failed in this. 4. No especially dangerous venous hæmorrhages are apt to be encountered. 5. The anterior rents of soft parts may be avoided if the accoucheur remembers that after section the inferior strait is oval transversely and not of the normal shape.

THE ELECTRICAL TREATMENT OF INFANTILE PARALYSIS.—Dr. Lewis Jones read this paper, *Brit. Med. Jour.* Since his appointment in the electri-

cal department of St. Batholomew's Hospital he had had opportunities of observing cases of infantile paralysis over long periods of time, and he formulated the following conclusions in respect of the results to be obtained by the electrical treatment: 1. It is important in every case of infantile paralysis which has lasted over four weeks to try electrical treatment, continuing it for six months or a year. 2. It is an exception for a muscle to be so completely destroyed by poliomyelitis as to have no functional fibres left. 3. Great development of the remaining fibres may be gained by persevering stimulation of them. 4. Where the electrical reactions are reduced to the very lowest flicker, or even entirely abolished, some improvement may still be hoped for. 5. Where the electrical relations are not altered in quality it is not good practice to leave the case to take care of itself. 6. Electricity acts only as a stimulant, but it is superior as such to any mechanical treatment by rubbing or massage, though it may advantageously be combined with these. 7. The form of electrical stimulation to be employed is of less importance than persistence in its employment. 8. The induction coil, with or without the bath, is easily arranged for use by the mother or nurse.

Strichnine Nitrate Hypodermcally in Alcoholism.—In an interesting paper by Dr. William B. Breed, of Syracuse, N. Y., read before the Onondaga County Medical Association, the author lays down the following as his conclusions, *Med. News* :—

1. That we have in this drug a remedy that actually, for a period as yet undetermined, removes the desire for alcoholic stimulation in the chronic inebrite, and that *without the least effort on his part.*

2. A remedy that removes the distress and gnawing at the epigastrum, so common upon the withdrawal of alcohol.

3. A remedy that tones up the nervous system, allays the insomnia, the flighty and other bad feelings in the head, the mental disturbances, and the tremulous agitation and uncertainty of voluntary motions due to the withdrawal of stimulants.

4. A remedy that brings back the appetite and general physical vigor of the body.

5. A remedy that temporarily transforms a wholly demoralized creature into a man.

6. A remedy that is of great value in acute attacks of alcoholism.

7. Incidentally, a remedy that is an exceedingly good and safe heart-tonic.

8. More than all, a remedy that exerts a moral influence upon the patient, giving him what he had before wholly lost, to wit: Hope, enthusiasm self-confidence, and courage, where before was despondency, abandonment, and despair; a steady, straightforward gaze, and a bright, youthful expression of the eye, which replaces the shamefaced, sneaking, apologetic air of total depravity of the chronic inebriate.

9. We have in the nitrate of strichnine *not* a remedy that will oblige a man to abstain from drink if he does not want to do so, and such subjects do not deserve one. From the results obtained by the gold cure, the silver-ash cure, the Keeley cure, etc., we may conclude that we have a remedy that is as efficient as any of these, and much safer—a remedy, morever, that is not secret and can be used by men who know the action of drugs and can use them with discretion and safety to the patient.

There is no reason why the public, which places its life in our hands daily, should be obliged to offer up sacrifices upon the shrine of quackery, when men can be treated privately, safely, and efficiently by any family physician, and avoid publicity, danger and expense.

Perhaps we have not a specific; probably not, but we are as near to it as the quacks are; and if such cases of doubtful, if not suspicious, death, as the one which occurred here lately, can be avoided, it is right that the public should, through us, know it and profit by it.

From a scientific standpoint, these few cases afford but scanty statistics from which to draw conclusions. But if, from a humane standpoint, as much good can be done in all cases as in these few, we have done much to better the condition of our fellow-men.

Tuberculous Meningitis Cured by Drainage.—Dr. W. Wallis Ord and Mr. H. F. Waterhouse read notes, *Br. Med. Jour.*, of a case of tuberculous meningitis in a child, aged 5, relieved by drainage. The child was admitted in an apathetic condition, with double optic neuritis. From time to time she uttered a piercing scream,

and the *tâche cérébrale* was well marked. Symptoms of intracranial pressure having supervened and the child being on the point, apparently, of passing into a condition of coma, Mr. Waterhouse trephined through the cerebellar fossa of the occipital bone, giving exit to a small quantity of fluid. A drainage tube was left in, and the wound was closed, the fragments of bone being replaced by Macewen's method. The child did well, and the symptoms subsided, though at one time the wound seemed to have been infected by tubercle. The question of diagnosis was discussed, and it was pointed out that for success to be hoped for, it was necessary not to wait till the child was comatose.

INDICATIONS FOR TREATMENT OF ANGINA PECTORIS.—Dr. J. Burney Yeo summarizes the treatment of angina pectoris, as follows (*Boston Med. and Surg. Jour.*):

1. To maintain or improve, when defective, the general nutrition; to avoid all strain, physical and emotional, and to relieve cardiac feebleness and excessive effort.

2. To relieve dyspeptic conditions and flatulent or fæcal distentions of the stomach and intestines.

3. To forbid the habitual consumption of agents which may exercise a toxic action on the heart, such as tea, coffee, alcohol, tobacco, etc., or that which may introduce or develop toxines in the alimentary canal.

4. To avoid and remove all gouty and other blood contaminations.

5. To give such tonic remedies as may improve the cardiac tone and lessen existing tendency to cardio-vascular degeneration.

6. To relieve the paroxysmal attacks by sedatives and stimulants.

DR. PAUL GARNIER, of Paris, has made a special study of those slum children that are the offspring of habitual drunkards, *Med. and Surg. Rep.* He says: "There is a flaw in the very nature of these young wretches that the psychologist sees clearly and notes with apprehension—the absence of affectionate emotions, and where they did not become lunatics they show 'insensibility and pitilessness.'"

TREATMENT OF TONSILLITIS, *Med. Press*:—

℞—Ol. eucalyptus glob., . . . ♏ xv.
Spt. camphor, . . . . . ʒ jss.
Tinct. guaiac., . . . . . ʒ iijss.
Glycerine, . . . q. s. ad. ʒ j.

Ten drops on sugar to dissolve in the mouth, every hour or two.

## Books and Pamphlets.

A STANDARD DICTIONARY OF THE ENGLISH LANGUAGE. New York: Funk & Wagnals Co. Toronto: 11 Richmond Street.

We have received the first volume of this magnificent work, and partly as a duty to the publishers and more, perhaps, as a pleasure, have spent a great deal of time in studying it.

Space will not permit us to give even a few of the very many points of excellence of this work. It is the best and most complete dictionary of the English language we have ever seen.

Having said this, little more need be said. We may state, however, that the publishers have spared no expense to make it what it is; the cash outlay to the completion of this first volume being nearly $500,000.

The staff of editors is a most imposing one, comprising, we should imagine, the bulk of the best American scholarship in the various subjects treated; that is, all subjects that can possibly be treated of in a dictionary.

It is sold only by subscription at the following prices:

Single Volume Edition—Half Russia, $12; full Russia, $14; full morocco, $18.

Two Volume Edition—Half Russia, $7.50 per volume, $15 per set; full Russia, $8.50 per volume, $17 per set; full morocco, $11 per volume, $22 per set.

The above prices include Denison's Patent Reference Index.

THE YEAR-BOOK OF TREATMENT FOR 1884. In a series of twenty-four chapters, by eminent specialists. In one 12 mo. volume of 497 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co. 1894. Toronto: Carveth & Co.

This work by eminent specialists is again with us. It is only necessary to mention the names of Mitchell Bruce, Dudley Buxton, W. J. Walsham, and Edmund Owens among the twenty-four editors, to warrant the quality of the book's contents.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

# INTESTINAL PERFORATION IN STRANGULATED HERNIA.*

BY W. B. DE GARMO, M.D.,

Professor of Special Surgery in the New York Post-Graduate Medical School and Hospital.

While the title of this paper restricts our discussion to only one point of a very extensive subject, even this one point can be discussed only in a general way before a scientific body whose programme is crowded with papers, many of which may be of more interest to the general practitioner. Certainly few can be of more importance, as every medical man who has been confronted with a damaged intestine, always unexpectedly, will freely admit. Then is the moment when the patient's life hangs upon the merest thread, and then the moment when the thread shall be severed or judiciously husbanded by the medical attendant, and the correctness of his judgment will depend largely upon the thought he has previously given to the subject. There is no time to look up this authority or that, nor to judge between the flowery and convincing statements of the one, and the equally positive statements, directly contrary, of the other.

These then are the questions of vital importance for the consideration of a representative medical body, that a free comparison of views may be had, and that the members may go home with firmer convictions as to what should or should not be done when these grave emergencies arise. It is true that these conclusions may be in direct opposition to the reader of the paper, and still they are very liable to be approximately safe if they represent the judgment of a majority of those present who are qualified by experience or study to enter into the discussion. Another point that presents itself strongly to the mind of the speaker is, that it is far better to limit discussion, to a great extent at least, to the more simple methods of procedure that can be carried out by the average practitioner, rather than devote the time to those intricate operations that cannot be executed by any but the most experienced abdominal surgeon. If all cases of strangulated hernia received the prompt surgical attention that they are entitled to, then the discussion of the subject embraced in the title of this paper would be entirely unnecessary. Unfortunately, this much-desired state of affairs cannot be realized as long as there remain uncertainties in diagnosis, popular prejudices against operations, or—even worse—hesitation on the part of the medical attendant as to the proper course to pursue in order to protect his patient against so disastrous an accident.

The strangulation which leads to the destructive process under consideration may come about gradually, or be immediate, according to the circumstances attending the case. In the first instance, a loop of bowel lying through the canal is moderately constricted, commonly at the external ring. This constriction retards the return flow of venous blood. Progressive engorgement takes place until the blockade becomes so great as to shut off not only the return flow, but also the vessels of supply. Not only is the constricting band becoming tighter and tighter, but frequently, by the formation of gas in the interior of the bowel, the pressure is increased. This pressure from within the gut frequently has a far greater influence upon subsequent events than is generally recognized.

Immediate strangulation usually occurs as the result of forcing down suddenly a new loop of intestine or piece of omentum by the side of a protrusion already present, thereby blocking the canal to such an extent as to shut off at once all blood supply. In such cases the onset of the trouble is usually sudden and violent.

I feel that we should also give serious consideration to a third form of strangulation which is brought about in quite a different manner, and the true character of which is seldom recognized. It occurs in old irreducible hernias, and usually those of large size, where one or more long loops of bowel form the protruding mass. The bowel becomes adherent and otherwise crippled by bands

* Read before the N. Y. State Med. Soc., Feb. 7, 1894.

traversing the sac. Eventually it loses its natural peristaltic movement and lies in the sac as a passive curved tube moderately constricted at its passage through the muscular wall of the abdomen; through this tube the intestinal contents must be forced by the normal action of the bowel within the abdominal cavity. The first symptom of serious trouble in these cases is that of obstinate and gradually increasing constipation, terminating in intestinal obstruction with all of its accompanying symptoms. It is usually in the last-named state that the physician sees it for the first time. He is very likely to recognize the site of the hernia as the point of obstruction. It is only in cases of extreme delay that perforation occurs in this class. In fact, the operator may find a condition of extreme engorgement only, and is surprised after doing a careful operation that the patient eventually dies. The cause of death is usually intestinal paralysis, both from the crippled condition of the bowel in its long residence outside of the body, and from the moderate degree of pressure which has been constantly across the neck of the loop. Attention is especially drawn to this group because of their essentially fatal character. They are, in many instances, fatal where the bowel is not perforated, and they are almost necessarily so if ulceration or gangrene occurs. Doubtless, if we could recognize these with certainty, and where it could be carried out with any degree of skill, resection of the entire loop would be in the interest of the patient.

It seems to the speaker important to recognize the three modes of strangulation briefly referred to, as having a direct bearing upon our prognosis as well as treatment of the damaged bowel, and that we should carefully weigh all of the circumstances attending the onset of the trouble, rather than be governed wholly by the appearance of the bowel as found upon operation.

As an illustration of this point, two cases within personal experience may be cited, one in a woman of eighty years with acute strangulation for only six hours, where the bowel was so badly discolored as to make the policy of its return at first doubtful. She recovered promptly after methods of treatment mentioned later. Another woman of only forty-five with obscure symptoms of intestinal obstruction for ten days, was found to have a loop of bowel moderately congested and mechanically obstructed by sharp flexion upon itself, having slipped through an opening in adherent omentum. The bowel had no appearance of serious damage, and still the woman died ten days later from returning obstruction due to paralysis of the loop which had been incarcerated.

There is no arbitrary classification that will apply to these cases, but for convenience we may speak of them as cases where upon opening the sac we find one of the following conditions:—

1. Congestion.
2. Inflammation.
3. Laceration and perforation.
4. Gangrene.

*Congestion.*—In cutting down upon strangulated bowel we may find it œdematous, its coats thereby thickened, and of a bluish or deep red, or even dark brown color. The first question for consideration after cutting the stricture which has caused the trouble, is whether or not the bowel may be returned to the abdomen, without risk of subsequent perforation. If the strangulation is of recent origin, and no great violence has been resorted to in attempts at manual reduction, then, though the appearance of the bowel is rather suspicious, we can usually so far improve its condition as to make its return perfectly safe.

From a fairly large personal experience in its use I am a strong advocate of the persistent application of hot water in the restoration of doubtful bowel. First of all be sure that the constriction has been freely divided, and the bowel has been drawn down far enough, so that the portion which has been under pressure can be inspected. Accidents of perforation after the return of the bowel are largely due, the speaker believes, to lack of this precaution. Sterilized gauze (not bi-chloride) or a towel wrung out of water that has been boiled, and at a temperature that can be borne without discomfort to the hands, should be laid upon the parts and changed as often as necessary to retain an elevated temperature until a return toward normal color indicates improved circulation. I have seen some striking illustrations of the efficacy of this method, and believe that the time spent in carrying it out does not add to the risk of the operation; on the contrary, that application of heat to the bowel tends to diminish the amount of shock frequently attendant upon strangulated hernia.

It is well to remember that dark spots on the intestine may be due to small blood clots between its coats, or there may be clotted blood within the interior of the bowel, although the latter is believed to occur rarely, except in children. It has been an experience frequently repeated with the speaker, in infants who had suffered temporary strangulation, who, after reduction by manipulation, have passed blood with the next two or three stools.

*Inflammation of bowel and sac* will usually be found associated with exudation of lymph and with considerable fluid within the interior of the sac. Great care is necessary in separating these adhesions that the bowel is not lacerated, and at times it will be found advisable to cut out a portion of the sac and return with the gut, after due precautions about thorough cleansing, and the use of the hot water to aid in restoring the bowel to its normal condition.

Here, again, must be repeated the caution about drawing the bowel down to a healthy portion and seeing that all adhesions are broken up before it is returned to the abdomen. Ulceration and perforation are also more liable to occur at the point of stricture than in the body of the loop.

The loop is usually found distended with gas, or fluid, or both, and this brings up the question of tapping, in order to secure easier reduction. I can hardly think that any surgeon of experience would, at the present day, do otherwise than advise against this procedure, even with the finest hypodermic needle. It has been found that making a puncture point in an already partially paralyzed intestine is quite a different thing from treating a healthy bowel in a like manner, and that it is inviting a breaking down of tissue at this point after the bowel is returned to its natural cavity. For the same reasons I look upon all forms of aspiration in attempted reduction of strangulated bowel with the greatest disfavor.

Tension upon the loop will be relieved when the stricture at its neck and surrounding adhesions are frely divided.

*Laceration and perforation.*—These two words have reference to two quite different accidents. Laceration may, and frequently does, occur as the result of violent taxis, or in separating adhesions during the operation in otherwise fairly healthy bowels; while perforation in this sense implies a solution of continuity by a destructive process, and that this degeneration of tissue extends beyond the point visible to the eye. To lose sight of this latter fact is almost certain to result in disaster to the patient. In either case, we usually have to deal with a septic condition, due to extravasation of the contents of the bowel, as well as a more or less localized peritonitis, and it is advisable to wash out all foreign matter as carefully as possible with a weak bichloride solution, followed by boiled water. If the opening into the bowel is of large size, it is well to close the bowel on either side by means of temporary clamps. Clamps designed for the purpose are not a necessity. A piece of iodoform gauze, or a flat rubber band surrounding the bowel and held by forceps, will answer every purpose. These precautions having been attended to, release the bowel at its point of constriction, both that its damage here may be estimated, and that normal circulation may be as quickly re-established as possible. Every care must be taken to prevent entrance of septic matter into the peritoneal cavity and surrounding tissues.

In closing rents in the intestinal canal, as in doing any work upon the viscera, there are a few points always to be borne in mind. 1st. That in bringing surfaces together where their union is intended, it must always be serous membrane. 2nd. It matters less what form of stitch this is accomplished by than that they are brought accurately together, with their surfaces in perfect apposition. 3rd. Moderate scraping of the surfaces to be brought together to secure their earlier and more perfect agglutination (a point made prominent by Dr. Dawbarn). 4th. The absolute cleanliness of the part after work is done upon it before returning to abdominal cavity.

Senn (*Journal Am Med. Ass'n, Aug. 12, '93*) has called attention to the advisability of having the line of sutures run transversely to the long axis of the bowel, when possible, so as not to encroach so much upon its lumen. Linear lacerations must be closed, however, according to the direction in which they run, and this can usually be done with no serious impairment of the size of the tube. In most of this work, the Lembert suture, either interrupted or continuous (Dupuytren) will be found best; applied with a small round needle, and the material preferably of silk.

Perforation from degenerative process is so closely allied to gangrene that the greatest caution

is necessary in dealing with it. The bowel may be friable for some distance from the ulcerated spot, and if sutures are placed in these structures they are quite likely to yield after the return of the intestine to the abdomen. Small spots may be turned into the lumen of the bowel and closed with the Lembert suture, as in the case of lacerations, but in the larger ones, or where the whole loop is under suspicion, the question becomes a very serious one. We have then to select between one of three methods: 1. Artificial anus. 2. Fæcal fistula. 3. Resection.

If we accept the conclusions drawn from the tables of Zeidler, Frank, Grant and others as final, we should resort to immediate resection in all cases where the intestine is seriously damaged, but the average practitioner is slow to adopt so radical a measure.

Owing to the eventually fatal character of artificial anus, aside from its disgusting features, many English surgeons favor the deliberate establishment of a fæcal fistula. Bennett strongly recommends (*Wm. H. Bennett, Clinical Lectures on Abdominal Hernia, 108*), where the damage is not too extensive, the returning of the bowel to the abdomen, and placing a drainage tube of large calibre through the canal in contact with it, thus establishing a fæcal fistula. His experience in some apparently desperate and hopeless cases appears to justify the measure. I can scarcely bring myself to look upon it as good surgery, and should prefer to keep bowel already perforated or of uncertain character, outside the abdomen, if, for any reason, it was not deemed desirable to make an immediate resection. It is true that bowel left protruding through the abdominal wall is not as favorably placed for prompt recovery as when in its natural cavity, but it is certainly much less liable to cause general septic peritonitis in this position, and can be very favorably placed if freed from all constrictions and suitably protected by antiseptic dressings.

If resection is advisable, what method can the average practitioner, with little experience in abdominal surgery, with limited resources, with few instruments, and sometimes no assistance, use. These cases cannot be sent to the expert, nor can the expert, in many instances, be brought to them. Resection is certainly brought to the extreme of simplicity by the use of the Murphy button, now so well known as to only need mention here. (*New York Medical Record, Dec. 10, 1892.*) It is only just to admit that although there are several very strong theoretical objections, it has had, perhaps, a better practical record up to this time than any other one method. Certainly, one of its greatest faults for use in the cases under consideration, is that it is quite liable *not* to be at hand when needed the most. I feel that we have one other method of resection which is fully as effectual, almost as easily done, and requiring only knife, scissors, and a needle and thread that could be found in any house, for its performance. I refer to the method of Maunsell, of New Zealand (*Am. Journal of Medical Science, March, 1892*), by which the bowel is joined end to end with serous surfaces in contact, all of its coats held firmly together with the stitches mostly inside the bowel. The damaged bowel having been cut away far enough back to insure healthy tissue, the ends are brought together by two temporary sutures, the first being at the mesentery and the second at the opposite or convex side of the bowel. The ends of these sutures are left long, and are tucked through a longitudinal slit previously made in one end of the bowel back about one inch and a half from its cut end. By traction upon these threads which form the two sutures, and which pass out of the slit in the bowel, one end is inverted, turned mucous side out, and the other end is invaginated into it, thus presenting both cut ends at the temporary slit with their serous surfaces in opposition. Traction upon the threads by an assistant will bring them in convenient position for stitching. This should be done with a long, slender, round needle armed with silk. The needle should pass through both walls of the two cut ends of intestine, cross its lumen, and transfix both walls on the opposite side. The thread can then be caught at the point crossing the lumen of the bowel, drawn out to a sufficient length and cut, thus forming two stitches with one passage of the needle. In this manner, the time required to stitch the ends together is reduced nearly, if not quite, one-half. Maunsell directs that the united edges of the bowel be painted with Wolfler's mixtures and dusted with iodoform, but while this may be advisable, it is shown that it is not a necessity by the very interesting case reported by Dr. Wiggin in the *New York Medical*

*Journal*, January 20, 1894. The invaginated bowel is now drawn out of the temporary slit and the latter closed.

## NEURASTHENIA.

BY PROF. G. RAUZIER, OF MONTPELIER.

Translated from the French, by D. Campbell Meyers, M.D., Toronto.

*(Continued from May No.)*

The invasion of the psychic sphere, the functional depression of a great number of organs, without corresponding material lesions, the neurotic nature of the disease, will furnish the principal indications of treatment. The general treatment of neurasthenia comprises three indications :

1. *To combat the cause of the disease.*
2. *To treat the neurasthenic source.*
3. *To pursue the predominant localizations.*

(1) To carry out the first indication it will be necessary to commence (and this is not always an easy task) to unravel by tact and perseverance the cause of the illness. It will be necessary to study the family circle, to penetrate its desiderata, to study the heredity, to take full account of semi-confessions, of half whispered avowals escaping during a moment of indecision, and to be able to define a course of casual treatment ; without which all intervention directly opposed to the illness will remain a dead letter. It is in this pathogenic treatment, in this distraction of the patient from the pre-occupations which possess him, that the actions of the doctor will be particularly delicate ; very often he should perform extra-medical work in the family, combat a system of defective education, modify a tense situation, to free the patient from a vicious habit, compel the persons surrounding (often unsympathetic or badly disposed) to participate in the cure. It is necessary, in a word, to detach the patient by all possible means from the pernicious influences (over-pressure, pre-occupations, excesses) which have aided the predisposition. It is by the same methods that one may realize a prophylaxis of the neurosis in any subject whose personal or hereditary tendency would make him liable to neurasthenia.

(2) The neurasthenic *foundation* is, above all, amenable to a severe *hygiene* and *moral treatment.*

It is most important that the doctor should assume authority over his patient and persuade him that he is not afflicted with any organic lesion, therefore there is nothing opposed to a radical cure. Such persuasion is not difficult to obtain, for the neurasthenic only asks to be reassured, but it is still necessary to try to maintain it. An attitude firm and at the same time kindly, a patient and sympathetic hearing of some of the troubles so varied, in whose description the imagination of the patient is never in default, a minute examination of all the organs will aid in obtaining the confidence of the patient, in acquiring his adhesion and collaboration to the treatment. Once in possession of the patient, in order to combat the psychical asthenia, it will be necessary to impose a line of conduct upon him, to outline a means by which he may maintain his wavering will with firmness, to measure and increase progressively his portion of responsibility, and in a word, to force him little by little to occupy himself and to wish.

A similar *hygienic* treatment would not be applicable to all forms. To cerebral neurasthenics one would advise exercise, walking, without fearing even a certain degree of physical fatigue ; to spinal neurasthenics, on the contrary, quiet would be found advantageous. In all cases, distraction, travels, residence in the country, a winter's sojourn in a temperate climate would be useful.

*Hydrotherapy* is above all *the* medical treatment of neurosis. Administered in a stimulating form (douches, sea baths) in exclusively depressive states, in soothing form (lotions, frictions, wet pack, cold immersions, long baths). Among excitable neurasthenics, it will give the best results if its use is persevered in. There should be added, in summer, a stay at one of the following thermal stations: Néres, Luxeuile, Royat, St. Sauveur, Lamalon, Ragatz, Evian, Bigorre, or in a special hydrotherapic institution.

Electricity has been utilized under its different forms. They have successively extolled Franklinization (Vigouroux), the electric stool, electric baths. In cases of localized manifestations, they have found the electric breeze, the spark and electric friction beneficial. Beard and Rockwell

have advised Faradization and general galvanism in certain symptoms, headache especially.

Prof. Grasset, in speaking of isolation in these cases, says: The patient should be separated from his family surroundings and be isolated in an institution where he will be under the continuous and absolute care of a resident doctor. Hydrotherapy is only one of the means to be employed later with some neurasthenics, not at all with others.

The *medicinal treatment* of neurasthenia comprises above all *tonic* agents: iron, quinine, kola, cocoa, cod liver-oil, as well as calmatives to the nervous system; bromide of soda, valeriante of ammonia, etc.

Three great methods emanating from parallel theoretical conceptions, and all three utilizing the hypodermic method, have lately been proposed, and are regarded favorably by practitioners, they are *injections of testicular juice, injections of cerebral substance, and injections of artificial serum.*

Brown Sequard has been the great promoter of this general method of injections of organic substances in the treatment of nervous diseases. He sets out with the idea "that a sort of essence of virility can be discovered in the animal tissues, capable of producing, in extremely small doses, as much good effect as the toxic and morbid ptomaines (can) evil." Applications of this theory have also been made in tabes, Basedowe's disease, myxœdema, etc.

Brown Sequard has proposed injections of testicular juice in the treatment of neurasthenia. Crocq, of Brussels, and several other authors, have utilized the tonic properties of phosphate of soda. This question is of such great theoretical and practical interest, and again its solution is at the present time so much discussed, that we limit ourselves to pointing out these methods without discussing their developments, which would lead us much too far.

Again, the *treatment of predominating symptoms* should not be neglected, ordinary treatment, and which has nothing especially common with neurasthenia.

In cases of insomnia, one administers chloral, sulphonal, extract of cannabis, bromidia. Charcot has found in this symptom an application of his vibratory method.

Gastro-intestinal troubles will be amenable to habitual treatment of dyspepsia in its different forms. If dilatation is accompanied by hyperchlorhydria, stimulants of the gastric secretions should be administered (nux vomica, bicarbonate of soda, hot Vichy water), at the same time combating fermentations (washing out the stomach); one should obtain antisepsis of the digestive canal (benzo-naphthol) and avoid constipation by the daily use of laxatives, mild and frequently changed (cascara, podophyllin, belladonna, oily laxatives, linseed, alkali powders). In the case of hyperchlorhydria, large doses of alkalies should be given, etc.

Neurasthenic angor is above all amenable to antispasmodics and sedatives; it does not contraindicate in any way the use of hydrotherapy. In the treatment of the different topoalgias, glossodynia, coccyodynia, mammary algia, etc. Blocq has advised the provocation, at the level of the place where the pain is felt, of a painful and relatively durable sensation, being of the opinion that pain artificially created, superposing itself on the spontaneous subjective pain will substitute itself for it, and that, thanks to that temporary mobilization, the latter will disappear. One could use cauteries and blisters, the electric brush and powdered chloride of methyl, etc.

We will only mention to condemn the different surgical experiments (ablation of the uterus or its appendages) performed with a view of overcoming certain *neurasthenic localizations.* Surgical intervention is only justifiable when there is a manifest and truly palpable lesion, whose persistence seems to play a part in the evolution of the neurosis.

In terminating this study it seems necessary to guard against a tendency too common among those who are called upon to treat neurasthenia, the abuse and complexity of therapeutic means. The diversity of neurotic symptoms, tends naturally in short to multiply medications, and that very often to the great detriment of the patient. One should constantly guard against such an excess, and avoid above everything connecting *therapeutic overpressure* with the noxious circumstances which maintain the disease.

(*The end.*)

---

BE sure you read the advertisements for pointers.

## REPORT OF A CASE OF VAGINAL HYSTERECTOMY FOR CANCER OF THE UTERUS.

BY J. ALGERNON TEMPLE, M.D., M.R.C.S.E., TORONTO.

Mrs. V. was admitted under my care as a private patient in the Toronto General Hospital, suffering from cancer of the uterus, with the following history:—In appearance she is a healthy woman, clear, bright complexion; aged 38, with a good family history, having never heard of any relative on either side, having cancer. Married eleven years, five children, youngest one fourteen months old. For the past two years has had more or less bearing down pain in the pelvis, and backache, otherwise healthy.

Three months ago she noticed a thin, watery discharge from the vagina, and for the past six weeks a bloody discharge, more or less offensive; has not lost flesh during the past three months. Her family physician on examination detected cancer of the cervix; and on consultation with him, I found a distinct localized cancerous deposit on the posterior lip; she had also an extensive bilateral cervical laceration, the uterus itself was quite movable, the vaginal walls not at all involved, and so far as I could ascertain no pelvic glands enlarged. I recommended hysterectomy, as seemingly the best operation for her to submit to. I firmly believe when the vagina itself is involved even to a slight extent, that hysterectomy offers no better chance to the patient than simply curretting and the use of the cautery or some caustic application.

On the 17th of April, the patient having been put under chloroform, I removed the whole uterine body and the appendages through the vagina, using forceps to clamp off the broad ligament, which method, in my experience, is vastly superior to the ligature. The vagina was ligthly packed with iodoform gauze and patient put back to bed, the whole operation being completed within half an hour, and the patient losing but a very small quantity of blood. The forceps were removed in 36 hours, as also the tampon, which was not replaced again; within three weeks the patient was up and walking about, her recovery was rapid, and not uneventful. Complete removal of the uterus and appendages I consider should be performed in all suitable cases, and by this condition I mean, no enlarged pelvic glands, no vaginal involvement, and the uterus not in the least fixed. Comparing this operation with the high amputation of the cervix, I believe it to be better.

1st. I think it gives the patient the best chance against recurrence.

2nd. It can be as quickly, if not more quickly performed.

3rd. It is much less bloody.

4th. The mortality is no higher in my personal experience.

This is the sixth case of vaginal hysterectory I have performed without any death, so far as the operation is concerned. It is impossible yet to say what may be the ultimate result so far as recurrence is concerned. I would urge the early performance of this operation in this most dreaded disease, when even the case is seen early in its course.

## Selected Articles.

### ON THE TREATMENT OF SOME FORMS OF STONE IN THE BLADDER BY PERINEAL LITHOTRITY, WITH A DESCRIPTION OF THE INSTRUMENTS USED.

I have recently completed a record of over 400 operations for stone in the male bladder. These figures include instances of almost every recognized method of removing a calculus from this position, and though lithotrity, as I saw practiced by my late friend, Professor Bigelow, of Boston, under the name of litholapaxy, largely predominates, lateral, median and supra-pubic lithotomy, in their various modifications, have from time to time been utilized.

The greater number of persons thus operated upon were male adults up to 82 years of age, though these figures include 56 male children, who for the most part were treated by lateral lithotomy. As showing the safety with which the lateral operation can be practiced in these young subjects, I may mention that only one death, or failure to recover completely, occurred, and this was due to chronic pyelitis some weeks after the operation.

The stones removed by me in the course of these 400 operations include almost every variety in known chemical composition, though the hard urates and oxalates were the more frequent. One of the largest specimens of cystic calculus, weighing 1050 grains, now in the Museum of the Royal College of Surgeons, was successfully removed by lateral lithotomy. Medium sized stones, from

half an ounce to half a drachm in weight, were by far the most common, though some larger specimens, up to four ounces, occasionally presented.

These points are referred to incidentally for the purpose of showing that my practice has not been limited to one method of treatment, but has been varied to meet the different conditions under which stone in the bladder has come under my notice.

It may possibly be urged by some, considering the progress lithotrity has made during the present half century, that, save in instances where the stone is of such dimensions as to be beyond the capacity of any lithotrite, no other operation for its removal is now advisable. Such a view might be accepted if lithotrity, pure and simple, were always the entire success immediately and permanently we could desire. Mr. Cadge has pointed out in his Hunterian Lectures before the Royal College of Surgeons (1886) that the number of recurrences after the crushing operation, even in the hands of some of its warmest and most competent advocates, is such as to considerably detract from its completeness.

As in the case of other surgeons engaged in work of this kind I may state in general terms that my mortality has been a gradually decreasing one. Taking my last one hundred cases of stone operated upon by the various methods referred to, and excluding children and males under puberty, my number of deaths following crushing and nine cutting operations did not exceed five per cent. These cases, no doubt, at the present moment represent the best period of my work, and may be regarded as an outcome of the great advances that have been made in the operative treatment of stone in its various directions by Bigelow, Thompson, Cadge, Guyon, Keegan and Freyer, to each of whom we are indebted for something distinctive, in either the method or the application of treatment.

Fully recognizing the work of these distinguished surgeons, I am at the same time disposed to give some prominence to three circumstances which have contributed in no small measure to the results I have arrived at: (1) To the earlier diagnosis of stone which now prevails, and the application of treatment before the calculus has attained any considerable dimensions; (2) To the detection of a stone in the bladder with the sound, being concurrent with its removal; and (3) To a more extended experience in selecting the most appropriate, and therefore safest operation.

The object of this paper, however, is to briefly describe a method of operating which has been found particularly applicable to some exceptional cases, and where the results obtained from it contributed materially to the small mortality of a series of operations which embraces both lithotomy as well as lithotrity.

It is not necessary for me to enter upon the history of perineal lithotrity, and to trace the various modifications which have from time to time been described. The proceeding has been referred to by Dr. Gouley, of New York, in the following words: "The name of perineal lithotrity was given in 1862, by Professor Dolbeau, of Paris, to an operation completed in one sitting by which the membranous portion of the urethra is opened, the prostate and neck of the bladder dilated, instead of being cut, and a large stone crushed, and the fragments immediately evacuated."

It was with this definition before me that I entered upon the study and practical application of the principles of this operation. I published my first communication on perineal lithotrity some years ago, and I have practiced it in fourteen instances in male adults. In every example the operation was successful, recovery being rapid and complete, and I am not aware that recurrence of stone has in any one of these cases followed.

The chief features in connection with the operation I am about to describe are: (1) The mode of obtaining access to the interior of the bladder from the perineum; and (2) The mechanism connected with crushing and evacuating the stone.

From a number of experiments I made on the dead subject as well as from the performance of median cystotomy on the living for various purposes, it seemed unnecessary to do more than to make an opening from the perineum into the membranous urethra at the apex of the prostate, on a grooved staff passed along the urethra, sufficient to admit the introduction of Wheelhouse's small tapering gorget, and subsequently the index finger into the bladder, as for digital exploration, or, as is done in the boutonniere or Cock's operation—more than this is not necessary. In Dolbeau's operation direct access to the bladder was obtained by this route, aided by the use of an expanding instrument by means of which the prostatic urethra and neck of the bladder were dilated. It seemed to me, from some experiments made on the cadaver, that the latter means of dilatation was not only unnecessary, but was open to the objection that, unless used with the greatest care, it was possible to inflict serious damage.

Further, I succeeded in demonstrating that by means of crushing forceps shaped somewhat like the blades of a lithotrite, and not exceeding by actual measurement in circumference that of an ordinary index finger, sufficient power might be provided to crush and assist in evacuating any stone that could be fairly seized in this way. These forceps are provided with a cutting rib within the blades, and the more powerful instruments, as you will see, from the specimens I am showing you, are fitted with a movable screw on the handle. The fragments may subsequently be

withdrawn by means of aspirator catheters passed through the wound, or even by the forceps. If care is taken to make the perineal wound correspond in size with the evacuating catheters, which should be of about the size of an ordinary index finger, there is no difficulty in keeping the bladder distended during the necessary manipulations.

The chief points in favor of this operation are these: (1) It enables the operator to crush and evacuate large stones in a short space of time. (2) It is attended with a very small risk of life as compared with other operations where any cutting is done, such as lateral or supra-pubic lithotomy, and is well adapted to old and feeble subjects. In his recent address, Mr. Swinford Edwards shows that the latter operation for large stones has a mortality somewhere about 50 per cent. (3) It permits the operator to wash out the bladder, and any pouches connected with it, more effectually than by the urethra, as the route is shorter and the evacuating catheters employed of much larger calibre. (4) The surgeon can usually ascertain, either by exploration with the finger, or by the introduction of forceps into the bladder, that the viscus is cleared of all *débris*. (5) It enables the surgeon to deal with certain forms of prostatic outgrowth and obstruction complicated with atomy of the bladder in such a way as to secure not only the removal of the stone, but the restoration of the function of micturition. (6) By the subsequent introduction and temporary retention of a soft rubber drainage-tube states of cystitis due to the retention of urine in pouches and depressions in the bladder wall are either entirely cured, or are permanently improved. To lock up unhealthy ammoniacal urine in bladder that cannot properly empty itself after a lithotrity is to court the formation or recurrence of a phosphatic stone. Hence it is well suited to some cases of recurrent calculus. I have never known the wound to remain unhealed, except in those instances where, for some reason or other, it has been desired to construct a low-level urethra, as in an instance I have recorded elsewhere.

It is well adapted for some cases of stone in the bladder complicated with stricture in the deep urethra, as it enables the surgeon to deal with both at the same time. Nor does it expose the patient to the risk which may be attendant where lithotrity is performed with a weakened or permanently damaged urethra. Dr. Bazy has also recently illustrated its advantages under these circumstances.

I will conclude this paper with a brief record of three illustrative cases, and show the specimens removed:

(1) A man, 24 years of age, who was cut for stone by a perineal method ten years previously, came under my care in 1888 suffering from a large stone in the bladder and a small perinæl fistula, the result of the preceding operation. As I thought it best to try and remove the stone and close the fistula at the same time, I adopted the method I have described, and broke up with the forceps, and extracted a large phosphatic stone weighing nearly three ounces in a few minutes. The fistula tract was doubtless included in the line of section. A drainage tube was introduced into the bladder through the wound. On the fifth day normal urine was discharged through the tube, when the latter was withdrawn and the wound closed soundly in forty-eight hours. The patient was known to be well two years after this operation.

(2) A man, aged 52, came into St. Peter's Hospital in 1893, suffering from calculus and some form of prostatic obstruction. The latter complication requiring attention I selected the perineal method, and in a few minutes, partly with the crushing forceps and partly with the evacuator catheter, I removed over three ounces of very hard urate calculus in addition to a polypoid excrescence of the prostate as large as a good-sized grape. A drainage tube was passed into the bladder through the wound, and the operation was completed without delay; the tube was retained for a week, and on its withdrawal the wound healed in a few days.

(3) The third case was that of a man, aged 62, whom I operated upon in 1890. He had undergone five operations previously by other surgeons for stone, which seemed to be primarily a urate calculus, and subsequently phosphatic. When I saw him another stone had formed within eight months, his bladder was pouched and almost completely atonic, as he was largely dependent upon his catheter. The size of his bladder, irrespective of the size of the stone, led me to select perineal lithotrity. There was a large post-prostatic pouch containing an ounce calculus, which was readily crushed by the forceps, and removed in a few minutes. I also twisted off a piece of prostatic outgrowth, which seemed to act as a valve. A drainage tube was retained for over three weeks, when the urine being normal it was withdrawn. The wound healed soundly in the course of a few days. The power and function of the bladder has been completely restored, and there has been no recurrence of stone.

I have selected these three cases as illustrating conditions of complication which not unfrequently render lithotrity an imperfect success. The alternative operations of perineal or supra-pubic lithotomy, as usually practiced, would, I believe, have exposed the patients to a greater risk than I liked to incur. I therefore selected a proceeding which seems to me, whilst providing a most efficient and convenient means for rapidly removing a stone from the bladder, is, at all events, free from the risks of hæmorrhage and shock as not rarely attend

the older forms of lithotomy. If a stone could be dealt with as soon as it was retained in the bladder no other operation than lithotrity would ever be practiced, except, perhaps, in some few instances where a calculus is the natural consequence of some deceased condition within the bladder which is capable of being removed.—Reginald Harrison, F.R.C.S., in *Times and Reg.*

## ON MENORRHAGIA AND METRORRHAGIA.

The abnormalities of menstruation, although, as pointed out in my former lectures on this subject in the *Med. Times and Hosp. Gaz.*, to be considered chiefly in the light of symptoms rather than that of specific forms of disease, nevertheless not unfrequently assume such prominence as to demand special consideration. To none of those menstrul irregularities is this observation more applicable than to the pathological or hæmorrhagic increase of the catamenial flux which is known as menorrhagia, and to which, together with the cognate subject of metrorrhagia, or an intra-menstrual loss of blood from the uterus, I shall now briefly invite your attention.

*Menorrhagia.*—With regard to the first-named of these complaints it is hardly necessary to premise that the normal catamenial flow amounts to between three and six ounces of sanguineous fluid, the evacuation of which occupies a period varying from three to five days at each regular epoch; and that any notable increase in either the amount or duration of that discharge constitutes menorrhagia. A reference to a few cases of this kind, which together with others, are described in my recent work on "Clinical Gynæcology," will serve to illustrate the general pathology and treatment of these conditions.

*Congestive Menorrhagia from Subinvolution.*—C. N., aged 40, a farmer's wife from Kilkenny, was admitted eight months after the birth of her ninth child, suffering from endometritis and subinvolution, with excessive menstruation, her catamenial period lasting for over a fortnight, and leaving before its return an interval of only ten days, during which a slightly hæmorrhagic uterine discharge continued until the next epoch. On examination, the uterus was found low down, retroflexed, and greatly enlarged, the sound passing nearly its entire length into the cavity. The cervical canal having been rapidly expanded with my dilator, the endometrium was thoroughly curetted, and the exposed uterine surface freely swabbed over with iodized phenol, which was again applied on subsequent occasions. The flexion was then reduced, a rolled pessary introduced, hot-water uterine irrigations were directed twice daily, and the following mixture prescribed:

℞—Liquor ergotæ, B.P., . . . ℥ j.
Tinctura nucis vomicæ, . . . ℥ j
Tinct. quiniæ, . . . . . ℥ ij.
Aquæ cinnamoni, ad. . . . ℥ viij.
M. et fiat mistura.
St. ℥ ss. ter en die.

In less than three weeks the uterus became nearly normal in size, the metrorrhagia completely ceased, and, the monthly period having passed over without any excessive loss, she was discharged from the hospital.

I need not enter on the details of some other ordinary cases of menorrhagia and metrorrhagia that were pointed out to you at the bedside in instances of uterine myoma, chronic endometritis, and uterine cancer under treatment, the result of which is undetermined. But I may take the opportunity of calling your attention to another case of this kind which appears to me of special interest from its exceptional gravity and intractability to the treatment employed.

CASE II. *Ovarian Menorrhagia.*—E. L., aged 20 years, a shop assistant, who during the summer season had been under our treatment for menorrhagia, again presented herself at the dispensary in a worse condition than before, so that when admitted into the hospital she was in a state of extreme debility, and in fact almost exsanguine from profuse menorrhagia. This, as stated, had existed, though in a lesser degree, from her earliest menstrual epochs, but within the past two years had assumed a progressively increasing severity until her admission, when there was only a few days' interval between her catamenial periods, during which the discharge daily saturated half-a-dozen diapers, and has resulted in the condition evinced in her bloodless aspect, as well as by the intnse anæmic frontal headache, extreme nervousness, physical prostration, cardiac palpitation, distressing aortic pulsations, and other symptoms of hæmorrhagic loss, of which she complained. On examination, the uterus was found somewhat congested and the left ovary enlarged to the size of a pullet's egg. Besides these local conditions, there was in this girl's family history evidence of an hereditary predisposition to menorrhagia, if not actually of the bleeder diathesis, or hæmophilia, her mother and two sisters having all suffered, though in a less degree, from profuse hæmorrhages from other organs.

When previously here under observation last summer, the symptoms described were relieved by the treatment then adopted, which consisted locally in counter-irritation with strong liniment of iodine, followed by inunction of oleate of mercury over the enlarged ovary and hot-water irrigations per vaginam and rectum each day. At the same time her constitutional condition was

improved by the raw-meat *purée* here so frequently employed in the dietary of anæmic patients; whilst, in the way of medicine, iron, ergot, etc., were thus prescribed:

℞—Liquor ergotæ, B.P., . . . ℥ j.
Tincturæ ferri mur., . . . ℥ ij.
Acidi hydrochlorici diluti, . . ℥ ij.
Glycerini, . . . . . ℥ j.
Aquæ, ad. . . . . ℥ viij.
M. et fiat mistura.

Sig.—One tablespoonful in a wineglass of hot water three times a day.

On this treatment she remained for nearly three months, during which her general health was improved and the menorrhagia diminished. At the end of the summer session, when our dispensary was closed and the treatment suspended, the monthly hæmorrhagia gradually returned, until her condition became that just described, and to relieve which, should all other means be unavailing, we were obliged to resort to salpingo-oöphorectomy.

*Constitutional and Local Causes of Menorrhagia and Metrorrhagia.*—With regard to the general causes of the conditions now under consideration it must be borne in mind that these, as just exemplified, may be either constitutional or local. Among the former we may include general hyperæmia or plethora, together with diminished inhibitory nerve-force from alcoholism, and the consequent tendency to utero-ovarian congestion noticeable in women of intemperate habits. These symptoms may also arise indirectly from obstruction to the portal circulation in hepatic affections, and are commonly observed in connection with Bright's disease and other chronic renal disorders, or in the course of sequence of various febrile diseases, especially small-pox, measles, scarlatina, and typhus. Still more frequently, however, both menorrhagia and metrorrhagia are immediately due to local pathological changes in the uterus, ovaries, or Fallopian tubes. Of these the first-named organ is the starting-point of the complaint in nine-tenths of such cases, in which the excessive menstrual, or intra-menstrual, discharge may be traced to chronic endometritis and subinvolution, or else to the presence of submucous fibro-myomata or other uterine neoplasms, or to malignant disease. Next to these the various flexions to which this organ is subject, and especially retroflexion, must be mentioned as among the common causes of menorrhagia, which may, moreover, be occasioned by any visceral congestion, or even functional obstruction, such as obstinate constipation, causing interference with the pelvic circulation. Lastly, we have to bear in mind that the ovaries, whence, as I still believe, the physiological changes by which normal menstruation is accomplished start, have their share in almost all the abnormalities of the catamenial function, and in none is this more manifest than in the frequent connection of menorrhagia with oöphoritis and with ovarian displacements or prolapse.

*General Treatment of Menorrhagia and Metrorrhagia.*—In dealing with menorrhagia or metrorrhagia, our primary consideration must be given to the causes, constitutional or local, of the hæmorrhagic tendency in each instance. The former, however, are beyond the scope of gynæcological teaching, whilst with regard to the latter, to which we must now confine ourselves, I need here only again point out that, with respect to congestive menorrhagia, for instance, we should endeavor to reduce the uterine hyperæmia by the treatment described in the lecture in reference to subinvolution, and, above all, by thoroughly curetting the diseased endometrium, or, if the case be one of ordinary endometritis, by application of the topical astringents and escharotics before pointed out. In like manner, in ovarian and tubal menorrhagia we must seek to subdue the abnormal condition of the appendages by hot-water injections per rectum, mercurial inunction over the ovarian region, and the internal administration of iodide of potassium and bichloride of mercury, before having recourse as a *dernier ressort* to removal of the diseased appendages. In the forms of hypermenstruation and metrorrhagia connected with uterine tumors, either these growths must be removed or their vascular supply and activity must be checked either by oöphorectomy or by the employment of the galvanic current, as is suggested by Apostoli. On the other hand, should the menorrhagia be due, as is often the case, to uterine or ovarian displacements, the rectification of these malpositions must abviously be the first step in the treatment of the case.

*Astringents.*—In many instances the use of vaginal injections or suppositories, with some astringent such as alum, sulpho-carbolate of zinc, perchloride or pernitrate of iron, or else tamponment of the vaginal and cervical canals, may be necessary for the immediate relief of excessive menorrhagic or metrorrhagic discharges; but at the same time it is essential to bear in mind that the utility of such applications, being at best merely temporary, they can never be regarded as in any way displacing the necessity for always seeking out and removing the exciting cause of the hæmorrhage in every case of this kind. For the former purpose, the internal employment of a vast number of too commonly useless so-called hæmostatic remedies have also been from time to time advocated, including, amongst others, the mineral acids, hazeline, hydrastis canadensis,

muriate of ammonia, digitalis, ergot and turpentine. Of these, the two latter, viz., ergot and turpentine, are those from which alone I have, generally speaking, experienced any well-marked astringent effects in the treatment of menorrhagic discharges. Lastly, in all such cases, whatever astringent remedies, local or general, may be thus employed, their action should unquestionably be supplemented by measures directed to the relief of the existing inter-pelvic congestion, and above all, by the free use of hot-water local irrigations, saline purgatives, bromide and iodide of potassium, and abstention from marital intercourse.—Thomas More Madden, in *Hosp. Gaz.*

## ERGOT IN THE TREATMENT OF PERIODICAL NEURALGIAS.

Having for a number of years relied upon ergot in the treatment of migraine, I was led to try it also in cases of neuralgias which were marked by the feature of periodicity, with results of which the following reports are illustrations:

CASE I.—My friend Dr. T——, a practising physician of this city, furnishes me with these notes of his own case. He writes: "During the winter of 1883-84 I was troubled with frequent headaches. The attacks grew more and more frequent until they assumed a periodical character, coming on daily about 6 p.m. This condition increased, until, in the early spring of 1884, they became intolerable and necessitated my staying in bed. Under the impression that the trouble was malarial I had taken quinine and arsenic, together with bromides, without relief. When I took to my bed I took thirty grains of quinine daily for three days, in doses of fifteen grains night and morning, combined with capsicum; also fifteen grains of bromide of potassium every two hours. During these three days I also took two twenty-grain doses of chloral. All this was attended with no relief, the pain beginning with an occipito-cervical aching and then increasing until the whole head was affected. On the evening of the third day you called and prescribed one drachm doses of fluid extract of ergot, to be repeated every two hours until relieved. Your prescription was:

℞—Extract. ergotæ fluid.,
Elixir cinchonæ . . . . āā ℥ j—M.

Sig.—Two teaspoonfuls in water every two hours, unless pain was relieved, when the intervals might be lengthened.

You stated at the time that it was a mistake to take large doses of quinine for periodical neuralgias, and directed me in the future to take but ten grains a day at 4 p.m. In an hour after taking the first dose of your prescription I went to sleep, which was the first sleep I had had in three days, and this ergot treatment made my recovery rapid. I must add that my headache was attended with no chill or rise of temperature. Several times since 1884 I have been threatened with similar attacks, but have always been immediately relieved by your ergot treatment."

CASE II.—Mr. B—— I saw in consultation with Dr. A. E. Carpenter, of Boonton, N. J., who sends me the following account, "Mr. B——'s was a case of remarkably severe periodical neuralgia, following a mild attack of la grippe. It affected the intercostals and also the great sciatic of the left side. The attacks came on about 10 p.m. every night, and were almost entirely uncontrollable. I had prescribed large doses of quinine and of other antiperiodics, without any satisfactory results. I even anticipated the attacks upon two occasions with half a grain of morphia hypodermically, but the same dose was required again before midnight. After becoming thoroughly alarmed about him, as you know, I invited you to see the case with me. It was the day after the patient had had the worst night of all. You ordered full doses of ergot in connection with moderate doses of quinine. That night the patient did not suffer at all, and had the best night which he had passed for a week. I continued your treatment for five days, and the patient made a speedy and permanent recovery. I found no necessity to give him any more morphia after beginning the ergot. The case had been of ten day's duration prior to your visit, ond each succeeding night its severity was progressive."

CASE III.—Mr. W——, a German druggist, living in Greenport, L. I., came, Septemper 4, 1893, with a story of persistent daily headaches, lasting all day, but subsiding at night, beginning at the occiput and extending anteriorly. They first came on in the summer of 1892 and lasted through the autumn, but left him in the winter. In June, 1893, they returned worse than ever, and continued to date. Ever since they began in 1892 he became much constipated, though he was never so before, and his constipation continued through the winter, when he was free from headaches. He had faithfully tried quinine and Warburg's tincture in very free doses without any relief. Pulse at his first visit, 110. Ordered to try four grains of exalgine at a dose, and if this did not relieve him, then to take a drachm of ext. ergot, fl. with elix. cinchonæ. On September 11th he reported that the exalgine gave him no relief, but the ergot, though it nauseated him, relieved him at once. He took the ergot from September 4th to September 8th, after which he has had no return of the headaches.

CASE IV.—I saw in consultation with Dr. L. Feigenblatt, of New York, Mr. W——, a young

gentleman much given to horseback riding. Began to suffer from headaches, beginning at the occiput and then extending to the temples, which came on about 11 a.m. daily and gradually grew worse till they reached their acme about 4 p.m., after which they subsided in the night, without, however, entirely disappearing. Dr. Feigenblatt failed to check their progressive severity till, on their becoming intolerable, he tried on one day thirty-grain doses of chloral with thirty of potassium bromide every two hours for two doses, with little more effect than causing a slight drowsiness. The next day, the patient becoming maniacal from pain, sixty-five grains of chloral, sixty of bromide, and thirty of antipyrin were given within two hours. This dosing caused a profuse sweating and moderate sleep. The third day a consultant who was called in recommended that quinine and Warburg's tincture, which had been tried at the beginning of his treatment by Dr. Feigenblatt, should be resumed in large doses. Accordingly sixty grains of quinine and two ounces of Warburg were administered in twenty-four hours, with even worse afternoon paroxysms of pain than before. The next day the bromide, antipyrin, and chloral doses were resumed, as the patient had got some sleep from them, but as no permanent relief from the recurrence of the attacks was expected, I was asked to see him, which I did at 1.30 p.m., October 21, 1893. I found him in bed with a pulse of 106, eyes suffused, and with some photophobia. Temperature, 99° F. Complained of considerable dull occipital headache and very apprehensive that it would soon come on in paroxysms. He had never complained of stiffness of the neck, or of aching in the spine or limbs; his only other complaint was that he had been troubled for a number of weeks with a morning cough, for which he had consulted the above-mentioned gentleman, who had seen him with his family physician for his headaches; but his cough persisted till his headaches came on, when it left him. Physical examination of his chest by me was with negative result. I advised his physician to begin at once with drachm doses of ext. ergot. fl. every hour, for three doses, with ten grains of quinine with the first two doses; and that if his stomach rejected either of the doses, that the ergot be given per rectum. I then requested the doctor to send me a report of the result. A week afterward the doctor wrote to me that with the first dose the patient experienced a good deal of relief; that he vomited the second dose, whereupon it was given by enema; and this was soon followed by complete subsidence of the headache, with profuse perspiration. This medication was repeated for three successive days, with final cure of the headaches, and what was also curious was that the second ten-grain dose of quinine, when given with the ergot, produced decided symptoms of cinchonism, whereas when it had been given singly in much larger doses before, it had failed to do so.

The severity of the pain in some cases of periodical neuralgias is remarkable. In one instance a gentleman, aged sixty-five, the type of a sturdy, self-reliant businesss man, became so overcome by a frontal neuralgia, with extreme photophobia and lachrymation, which came on about 10 a.m., that he could not help crying out from it like a child. In most instances, however, such neuralgias are of a dull, aching character, but frequently accompanied with great restlessness or marked depression. Thus a married lady once sent for me on account of what she described as an intolerable heavy aching coming on late every afternoon, in the lower part of the back, with aching in both hips and down the inner aspect of the thighs, and accompanied with a profuse leucorrhœa, which would diminish in about four hours, when the aching went off. I gave her free doses of quinine and ginger, and that not succeeding, tried Warburg's capsules without effect; whereupon six grains of solid extract ergot, with three of quinine, were ordered every hour for three doses, commencing at 2 p.m. Both the aching and the leucorrhœa were checked on the first day of this treatment.

In the treatment of migraine with ergot it has been my practice to administer the fluid extract of ergot combined with an equal quantity of cinchona elixir, to obviate its tendency to cause nausea. Two teaspoonfuls of this mixture is to be taken in water as soon as the premonitory symptoms of the headache are noticed, and the patient is advised to lie down and keep very quiet. If after an hour the headache continues, a second similar dose is taken, and then a third in another hour, if necessary. As nausea is such a general accompaniment of this affection, it is provided that if either of the doses be vomited it should then be taken as an enema in two ounces of water. I have rarely failed to arrest the attacks with this medication, even in long standing cases, and with a preventative course of intestinal antiseptics in the intervals the relief from the malady has often proved permanent.—W. H. Thomson, M.D., in *Med. Rec.*

## REMARKS ON THE ETIOLOGY OF CANCER.

I propose to speak, almost exclusively, of the etiology of cancer in the strict sense of the word—that is, of malignant tumours of the epithlial type. This subject has attained to great prominence during the last few years on account of the alleged discovery of parasitic protozoa in cancerous tumours. No one will be able to adopt a nar-

row view of the etiology of cancer who has read in Mr. Hutchinson's *Archieves of Surgery* the series of admirable clinical records, in which is shown the connection of cancer with other morbid processes, especially chronic inflammatory lesions. While bearing in mind as much as possible of what has been imparted to us by eminent observers, I have no wish to dissemble my personal bias towards a belief in a specific parasitic agent as one factor, and that probably a necessary one, in the causation of cancer. Leaving this for the present, I will glance very briefly at some contributory influences, which have received more or less general acceptance.

*Heredity.*—Under this head we have to distinguish carefully between diseases in which the disease itself is unmistakably inherited, and those in which a want of resistance or vulnerability of certain tissues is inherited, which may lead to the development of the disease if certain other conditions are favorable. To the first class belong syphilis and hæmophilia; to the second, in the great majority of cases, tuberculosis and cancer. It must also be remembered that in dealing with such a common disease as cancer the influence of heredity may be apparent rather than real; for although the same disease may affect the offspring as affected the parent or grandparent, yet the explanation may be that the individual was in both cases exposed to similar extraneous influences. Among private patients Sir James Paget estimated that a history of hereditary influence could be obtained in one case of cancer in every three. This estimate, high as it may seem, would still leave 66 cases in every 100 to be otherwise accounted for. Well authenticated cases have been recorded of cancer affecting many members of the same family, and extending over several generations.

*Age and Sex.*—Statistical tables and daily experience inform us that cancer is most commonly met with in persons between the ages of 40 and 60, and not infrequently between 60 and the end of life. The sudden rise between 40 and 50 is due mainly to the liability of the breast and uterus at this period of life to become cancerous. Females are about twice as liable to cancer as males; but if the reproductive organs are left out of account, cancer is much more common in males. Cancer of the lip is a hundred times as common in men as in women, and cancer of the œsophagus four times. In Constitutional statistics the stomach is invariably at the head of the list as regards liability to cancer, the position of the uterus, and still more of the breast, being comparatively insignificant. While allowing due weight to the obvious fact that cancer is, in the majority of cases, a disease of the decline of life, it would be a mistake to allow ourselves to be so dominated by this fact as to ignore the occasional occurrence of cancer before the usual age. I think some light may possibily be thrown on etiology by a more careful study of cancer occurring comparatively early in life. I may quote four instances of early cancer which I have come across quite lately without being at any trouble to search for records. The first case, which came under my own notice, was ono of cancer of the breast in an unmarried woman of 33. Careful inquiry failed to elicit any evidence of hereditary transmission. The second case, also of cancer of the breast, was related to me by a medical friend. The patient's age was 34, and no evidence of hereditary influence could be discovered. The third and fourth cases have been recently reported. One was a case of cancer of the rectum in a woman, of 30, and the other of cancer of the cæcum in a girl of 22. In neither case is anything stated for or against the influence of heredity.

*Chronic Irritation.*—It has been said that parts which have long been in a state of chronic inflammation or irritation are liable, under the influence of heredity or senility, to become cancerous. The well-known records of "lupus cancer" are a case in point. The cancerous process is something so specific, so different from ordinary chronic inflammation, that I cannot bring myself to believe in the evolution of the one condition from the other, without the superaddition of a specific cause. To my mind such influences as heredity, senility, local damage to parts, and the involutional changes in organs whose functional days are overpast, are so many predisposing causes to a specific disease, which prepare the way for the entrance of specific poison to the tissues. While saying this I must, however, admit that Mr. Hutchinson's records of warts and moles in the aged becoming malignant appear to afford strong ground for a belief in the evolation of cancer from simple and innocent modifications of structure. Some rare cases are on record in which cancer has followed the long-continued administration of arsenic.

*The Seat of Cancer, etc.*—It is a well-established observation that those parts which are frequently the seat of primary cancer are little liable to secondary deposits and *vice versa*. While these propositions will be generally admitted, it would be no easy matter to give reasons for all the observed facts on which they rest. For instance, in the case of mammary cancer, why is the live so often affected by secondary growths while the lungs may escape? If cancerous emboli can get lodged and grow in the capillaries of the liver, why does the same result occur but seldom in the case of the stomach, spleen, intestine, and kidney, which are nourished by the same cancer-laden blood? Auto-inoculation has been observed occasionally where a healthy surface has lain in contact with a cancerous one. Cases are also known in which inoculation of the stomach or in-

testines has been effected by means of fragments detached from growth higher up the alimentary canal. I may just mention, without comment, the liability to cancer of orifices, the narrowings and flexures of hollow organs—in short, parts exposed to friction and other local damage.

*Geographical Distribution.*—Cancer is said to be more common in Europe than in any other continent. By some authors it has been thought to be more common in low-lying districts, especially near river banks, than in elevated regions. It has also been stated that in France cancer is more commom in the country districts than in towns.

*Cancer a Specific Disease.*—Cohnheim's theory of the origin of new growths does not, I think, carry us very far towards explaining cancer. It is more applicable to the case of simple tumours, and, perhaps sarcoma. The epithelial cells of cancer have undergone a specific metamorphosis. Normal epithelium transplanted to an abnormal situation, as may occur accidently in surgical operations, does not grow into a cancer. A piece of scirrhous cancer transplanted into a rabbit disappears; the thyroid gland of a sheep transplanted into a man is in like manner absorbed. What, then, is the specific force which not only causes cancerous epithelium to proliferate, but also enables it to maintain its existence against the disintegrating action of the invaded tissues? Sir Jas. Paget has made an interesting comparison between cancer and the group of diseases which we are accustomed to call specific. He points out that the members of this group differ from one another as much as any one of them differs from cancer. If we compare the characters of syphilis, tuberculosis and cancer we shall find they present certain rough and general analogies; objection may no doubt be raised to points of detail. In each, for instance, the initial lesion is often solitary and local. This is followed by general infection of the system, effected primarily by means of the lymphatics and afterwards by the blood vessels. The tendency of each disease, if unchecked, is to destroy life. In each, again, after a prolonged struggle, the disease may die out and the patient survive. In only one of these diseases has a specific parasite been conclusively demonstrated as the cause, but can there be reasonable doubt that, in the case of diseases so similar in their course and development, a smilar cause will eventually be demonstrated for all three?

*The Specific Agent.*—It is hardly likely that cancer is caused by a bacillus, for its characteristic structure is very different from that of the lesions occurring in those diseases which we know to be caused by bacilli; but it is quite conceivable that protozoa living in the cancer cells might determine their proliferation, and by means of their toxic products exercise a more extended influence than the actual number of parasites would account for. I shall be told, I know, that the secondary deposits of cancer are all grafts from the primary one, and that the supposed parasite, if it be a *vera causa*, ought, acting by itself alone, to excite the disease in whatever situation it became implanted. The criticism is perfectly just. Let me try and state the parasitic theory a little more explicitly. It assumes that the association of the parasites with the epithelial cells, having once taken place, becomes permanent, both as regards the primary and the secondary manifestations of the disease; that epithelial proliferation alone does not constitute cancer; and that protozoa do not excite cancer in epithelial tissues unless favoured by a certain preparedness of soil. These assumptions, if proved true, would explain much that is obscure in the etiology of cancer. The theories of cancer are not few, and we may fairly ask: Does any of them give a better explanation of the cardinal features of the disease—of its pertinacious growth, its widespread generalization, its inexorably lethal tendency? I do not assert that the bodies which have been found in cancer during the last few years by many observers, and described as protozoa, are the cause of the disease. But a disproof of all connection between these bodies and the origin of cancer would not weaken the force of the general argument in favor of a specific parasite. Microscopic evidence alone will not settle the questions at issue. There is reason to believe, however, from evidence gained from the examination of specimens while still quite fresh, that some of the bodies described as parasites are at least living. What is necessary to make the evidence convincing is that the supposed specific cause should be shown to be capable of exciting cancer in an animal previously healthy, either acting alone or in presence of certain known concomitant conditions.—Dr. Catlin in the *Br. Med. Jour.*

## TREATMENT OF MALIGNANT TUMORS BY INOCULATIONS OF ERYSIPELAS.

Dr. William B. Coley (*Am. Jour. Med. Sci.*) while collecting the cases of sarcoma treated at the New York Hospital during the past fifteen years, found a case that seemed convincing evidence that erysipelas possessed a powerful curative principle antagonistic to sarcoma.

Five operations had been performed within a space of three years. At the last operation it was found impossible to remove all of the tumor, and the case was considered hopeless. Two weeks after the operation a severe attack of erysipelas occurred, followed by a second attack shortly after the first had subsided. During the progress of the

erysipelas the remains of the sarcoma entirely disappeared, the wound rapidly healed, and the patient remained well seven years afterward. The diagnosis in this case had been repeatedly confirmed by well known pathologists, and there was no possibility of attributing the cure to any other cause than the erysipelas.

If erysipelas, a disease produced by a specific organism, could cure a case of undoubted sarcoma when occurring accidently, it seems fair to presume that the same benign action would be exerted in a similar case if erysipelas could be artificially produced.

Dr. Coley applied treatment to ten cases which he has reported in detail. In addition to his own cases he has collected and tabulated all the reported cases of carcinoma and sarcoma in which erysipelas, either spontaneous or artificial, intervened. It is upon a careful study and analysis of these cases, as well as upon the more practical experience derived from his own cases, that his conclusions are based.

We find a total of thirty-eight cases of malignant disease in which an erysipelas has occurred, either by accident or intent. Of these thirty-eight cases the erysipelas occurred accidently in twenty-three cases, and was the result of inoculation in fifteen cases (including Dr. Coley's own); seventeen cases were carcinoma, seventeen cases were sarcoma, four either sarcoma or carcinoma. The immediate and final results were as follows:

*Carcinoma.*—Of the seventeen cases three were permanently cured. In addition, one case of probable carcinoma was well five years after the attack of erysipelas. Of the remaining thirteen, ten showed improvement, which, although temporary, undoubtedly added to the life of the patient in most cases. One case died, as a result of the erysipelas, on the fourth day.

*Sarcoma.*—In sarcoma the curative action of the erysipelas was even more marked. Of the seventeen cases of sarcoma we find seven, or forty-one per cent., well and free from recurrence from one to seven years after the attack of erysipelas. In addition to these seven cases there is a probable sarcoma of the breast, that was cured.

Ten of the remaining eleven showed more or less marked improvement, in some cases the tumor entirely disappearing, and not recurring for several months. One case died as a probable result of the erysipelas, which was in this instance accidental.

In nearly every instance the tumor was not a primary growth, amenable to operative treatment, but either a recurrence after operation had been tried and failed, or from its nature inoperable.

*Conclusions.*—1. The curative effect of erysipelas upon malignant tumors is an established fact.

2. The action upon sarcoma is more powerful than upon carcinoma, in about the ratio of three to one.

3. The treatment of inoperable malignant tumors by repeated inoculations of erysipelas is both practicable and not attended with great risk.

4. The curative action is systemic, and is probably due chiefly to the toxic products of the streptococcus, which products may be isolated and used without producing erysipelas.

5. This method should not be employed indiscriminately until further experiments have proved its limitations.—*The Atlanta Med. and Surg. Jour.*

## THE EARLY DIAGNOSIS AND PRACTICAL SURGERY OF CANCER.

Herbert Snow, M.D., London (*Am. Jour. Med. Sciences*): Great stress is laid upon the importance of early diagnosis. Early diagnosis, while difficult, can be greatly aided by remembering that "malignant lesions are especially prone to attack degenerating organs and degenerating people. With the exception of a numerically small congenital group of tumors which I have elsewhere classified under a special term, *blastoma*, and which mostly differ from ordinary cancer in rising spontaneously, malignant new growths are almost entirely confined to women above the age of thirty-four, to men past forty. Further, they appear in organs which have fulfilled their purpose and are undergoing devolution, or else intestines whose vitality has become conspicuously impaired."

Every tumor first noticed in the breast at or after the thirty-eighth year epoch is, in the great majority of cases, principally malignant; in the remainder it is certain sooner or later to become associated with malignant features in one form or another. From this sweeping rule, the most simple cyst within the gland parenchyma, a dilated acinus or dilated duct is not exempt.

Again it is laid down as an axiom that no average species of malignant tumor in the adult ever appears without an adequate and generally ascertainable cause.

About 11.7 per cent. of cases of cancer of the breast follow sudden injury—a blow or fall; the remainder are consequent upon some agency of a neurotic character impeding the normal devolution of the mamma.

Dr. Snow lays great weight upon "mental distress." He states that he has "known of one or two cases" follow an attack of influenza.

These statements cannot be accepted as in any way proven, although they should be given careful consideration as coming from a man whose opportunities for observation in this disease have been exceptionally great. The mere fact that a cancer was first noticed shortly after an attack of

influenza gives no scientific proof that such attack was an exciting cause rather than a coincidence. The fact that influenza is a disease so widely prevalent still further weakens the argument.

The physical signs of cancer are very well described.

In doubtful cases he believes that too much reliance should not be put upon the microscope, and cites the case of the late Emperor Frederick as a striking example.

Being of the cancer age, and "suffering from steadily progressive laryngeal symptoms, the *a priori* probabilities in favor of epithelial cancer were very considerable. Yet in fallacious reliance upon certain microscopic indications of no more than merely negative value, the only measure which afforded a prospect of cure was rejected with quickly fatal result."

"The same historical event further demonstrates what is familiar to the practitioner in cancer, that the microscope for diagnostic purposes is of doubtful use."

Its conclusions may be taken without hesitation for positive purposes, but rarely or never for the negative. They may show that cancer is present, but cannot be trusted to prove its absence.

Treatment is briefly dealt with. Each case should be treated on its own merits. Early and very thorough removal when possible, but severe and protracted operations upon persons already in an exhausted condition from long standing, malignant disease, are greatly to be deprecated.

Under existing conditions of practice, wherein cancer is seldom brought to the notice of the surgeon in its incipient stages, comparatively few operations should take place, but these should be searching and thorough.

The writer strongly advocates opium, and believes that opium persistently given from the earliest moment at which there is reason to believe the disease incurable by surgical means, not only materially prolonges the individual's life, but also has often a more marked effect in arresting the growth.

Iron, arsenic, quinine tonics in general are useless except as *placebos*.—*Med. and Surg. Rep.*

---

Extract of Bone-Marrow in the Treatment of Anæmia.—The red marrow of bone being probably the chief agent in promoting the development of red blood-corpuscles, it seemed feasible to suppose that an extract of this substance, if introduced into the human organism whilst in an anæmic state, might act as a stimulant to the formative process and increase the rate of production of the red corpuscles. In adult animals—as the ox—red marrow is limited to the larger bones of the trunk, the thick parts of the skull, and the heads of the long bones; the shafts of the latter contain yellow marrow, which is chiefly composed of fat. In young animals—as the calf—red marrow is more abundant and may be found in the shafts of the long bones as well as in the parts just named. As the tissue-forming power in young animals is more active than in older animals the bones of the former are preferable as a source of marrow extract. To prepare the extract the heads of the long bones, obtained from recently killed animals, with other portions of bone which contain red marrow, are broken into small pieces and digested in glycerine with frequent agitation. When the extraction is complete—several days being required—the extract is filtered off and is ready for use. It is red or reddish-brown in colour and is devoid of any unpleasant taste or odour. It may be given in teaspoonful doses once or twice a day either out of the spoon or spread between thin pieces of bread. The first case in which I tried the extract was that of a little boy, the subject of hæmophilia. This child had repeatedly been in the hospital under the care of one or other of my colleagues or of myself for attacks of hæmorrhage. On each occasion the bleeding ceased; but the patient never lost the pallor of pronounced anæmia, although he was treated with iron, arsenic, cod-liver oil, and all kinds of appropriate nourishment. The last time that he was admitted the red corpuscles were counted after the hæmorrhagic symptoms had subsided and were found to be 3,800,000 per cubic millimetre. The patient was then (Sept. 13th, 1893) put on marrow extract without any other treatment, and after an interval of three weeks the corpuscles were again counted; they now numbered 4,190,000, and one month later they reached 4,400,000. Coincidentally with this increase there was a marvellous improvement of the appearance of the child; his face acquired an amount of healthy color never previously observed during his many visits to the hospital. In a second case, that of a young woman twenty years of age, with long-standing anæmia, the corpuscles numbered 3,700,000 per cubic millimetre; after taking the marrow extract for three weeks they increased to 4,000,000. She then left the hospital. In another anæmic girl the increase in nine weeks was from 1,350,000 to 3,680,000. A man was admitted for profuse hæmatemesis; after the bleeding ceased the red corpuscles were found to be reduced to 1,070,000 per cubic millimetre. He was put on marrow extract without other treatment, and, when counted on the fifteenth day, the corpuscles numbered 3,050,000. I am indebted to our house surgeons, Messrs. Newby and Brown, for these observations. I am encouraged by these and many other favourable results to direct the attention of the profession to marrow extract as an agent capable of affording, to all appearances,

valuable aid in the treatment of anæmia, and also of oligæmia due to loss of blood from causes such as placenta prævia, hæmorrhoids, and wounds.—Dr. Mann in *The Lancet.*

THE CHANGE OF A BENIGNANT TUMOR INTO A SCIRRHOUS CANCER IN THE BREAST.—The patient was a lady fifty-four years of age, who had had more or less trouble in her breast for over twenty years, this having first appeared at the time that she was nursing her first child, now twenty-six years of age. For ten years she had noticed a lump in the outer segment of the right breast which during that time had not materially altered in size.

She was seen by Dr. Cabot in February, 1893. This little mass then was about the size of a large English walnut. It was movable, and seemingly not attached, either below or to the skin. She had noticed that this lump sometimes increased and became painful at the times of her monthly sickness, but then resumed its usual condition.

Dr. Cabot saw it again in July, when it seemed possibly a little larger than at the previous examination. The skin over it showed a little irregularity of surface, the irregularity seeming to be caused by a network of fluid spaces close under the outer layer of the skin. At no time could anything be felt in the axilla.

The patient was seen again in December, she having in the meantime had some electrical treatment, in the hope of dissipating the lump. The condition of the skin was unchanged, and it was deemed wise to remove the mass, not because it seemed like a cancer, but in order to leave no chance of neglecting a serious thing. The growth was removed, with considerable tissue on both sides of it, and on section, it was found to present the characteristic appearance of a scirrhous cancer. At once the rest of the breast and the skin lying over it, and all of the axillary contents, together with the loose, connective tissue lying between the breast and the axilla, were thoroughly removed. Dr. Whitney, who made the microscopical examination of the specimen, reported the nodule to be scirrhous cancer, and after a careful search through the glands in the axilla, could find none in which any cancerous change had commenced. The dimpling of the skin seemed to be due to the drawing of little fibres, running from the growth to the under surface of the skin at one or two points.

The case was interesting, as showing how a benignant tumor may insidiously take on a malignant character, and illustrated the importance of keeping such a tumor under observation and of removing it early, if any appearance about it suggested a suspicion of its charactor, The wound healed by first intention. Care was taken to make the section of the growth with a knife which was not used further in the operation; and the hands were carefully washed after this examination was made, before proceeding with the operation, in order to obviate the danger of any of the cancerous cells being transferred to the healthy parts. It seemed like a remarkably favorable case for a cure.—Dr. Cabot, in *Boston Med. and Surg. Jour.*

SOME DANGERS OF THE SCHOOL-ROOM.—Under the title of "Some Derangements of the Heart and Stomach Produced by the Usual Position Assumed by Children in School," Dr. Motais read an interesting and important paper before the Académie de Médicine of Paris. This subject received a considerable amount of attention at the International Hygienic Congress held in London in 1891. By "the usual position assumed in school" Dr. Motais means that attitude in which the pupil seats himself on the ischial tuberosity, supporting himself by leaning on the left elbow and stooping forwards, so that the trunk of the body then develops an antero-lateral curvature. The result is, firstly, that by the lateral inclination the border of the false ribs on the left side descends until it is in contact with the iliac crest. The larger curvature of the stomach is thus pressed upon the spleen and general mass of the intestines; secondly, by bending the body so much anteriorly a fold is formed at the upper part of the abdominal wall, and the anterior surface of the stomach follows the curve. The conditions produce a mechanical hindrance to the movements of the cardiac stomach. The function of the thoracic viscera is equally interfered with by means of the anterior curvature owing to the drawing together of the ribs, and also by the descent of the left half of the diaphragm towards the upper border of the stomach. The difficulty thus afforded to respiration reacts on the heart, the contractions of which are, moreover, mechanically hindered by the distortion of the thoracic cavity. The neck is necessarily somewhat twisted, and the large vessels at the root, therefore, are submitted to a certain amount of torsion. The effect of the attitude described above is especially marked when an organic affection of the heart exists. Dr Motais is also of opinion that this position is a strong pathogenic element protracting the duration of dyspepsia. He has found that if children who suffer from this complaint are made to assume a correct posture whilst in school, the symptoms subside more rapidly than when such a precaution is not taken. The same observations are applicable to adults engaged in sedentary occupations, and Dr. Motais laid great stress on the point that the medical man, when treating cases of chronic heart or gastric disease, should give his patients directions as to the posture to be assumed when much sitting is necessary.—*Lancet.*

A New Treatment of Naso-Pharyngeal Catarrh.—Bates, *Med News*, has treated with benefit more than fifty patients by syringing the lachrymal sac and nasal duct. Of the remedies used, olive oil gave the most general satisfaction. The syringe used is the ordinary eye dropper, with a tube drawn out to a fine point, bent at an angle of 90°, and about one-quarter of an inch long. It is small enough to enter the smallest punctum, preventing a return flow of the fluid.

To make the injection, the operator sits in front of the patient. Artificial light from an argand burner is reflcted by the fore-head-mirror on the inner side of the eye, direct illumination being less satisfactory. The operator may also stand behind the patient, who is then directed to look upward and outward. A piece of cotton about one-fourth of an inch in diameter is placed over the semilunar fold and held with the forefinger of the left hand with slight pressure against the upper punctum; this prevents the fluid from entering the eye from the punctum of the upper lid. The thumb of the left hand everts the lower lid sufficiently to expose the punctum.

The syringe, partly filled with the fluid to be injected, is lightly held by the bulb with the thumb and the first two fingers of the right hand, the tip is inserted into the punctum and the syringe turned until the tip is at right angles to the margin of the lid and parellel to the conjunctival surface of the lower lid. Slight pressure is made on the bulb, and the level of the fluid in the syringe is seen to descend as the injection is being made. Sometimes the injection is difficult, after the tip is introduced into the punctum; and manipulation of the syringe up, down, and in various directions, will be required to free the point from the obstructing conjunctival fold. Nervous patients give trouble, and in such cocaine helps, but does not always relieve the difficulty.—*Polyclinic.*

Operative Treatment for Tubercular Peritonitis in Children.—The author (L Conitzer), reports seven cases, four belonging to the exudative and three to the dry form. All were operated upon at the Jewish Hospital in Hamburg. The histories and results were given in detail, and the author presents the following conclusions:

1. Tubercular peritonitis can be cured spontaneously in the dry form comparatively less frequently than in the exudative type, which is cured in most cases.

2. The spontaneous cures of the exudative form of tubercular peritonitis, have heretofore been regarded as cases of chronic exudative peritonitis or ascites.

3. All forms of tubercular peritonitis can b cured or at least improved by abdominal section even though other therapeutic measures, including puncture, have been tried previously.

4. The result of the operation depends upon the form of the disease (the best result being attained in the chronic variety), the previous duration of the disease and the eventual complications.

5. The operation is indicated when the internal theraputics have proved of no avail.

6. The operation is contraindicated in those patients of poor vitality, or in cases suffering from tuberculosis of other organs.

7. The question of how the cure is effected by abdominal section in these cases has remained unanswered.—*Deutch Med. Woch.*

Compression of the Phrenic Nerve in Laryngitis Stridulus.—Two patients affected with spasm of the glottis were treated by Dr. H. Bidon according to Lelvire's method of treating nervous hiccough, by compression of the phrenic nerve. The first case was in a young hysterical girl who, after a convulsive crisis, was so violently and persistently seized with spasm of the glottis, that a fatal issue appeared imminent. The author put his index finger between the two lower attachments of the right sterno-cleido-mastoid muscle and strongly compressed the phrenic nerve. The patient at once made a respiratory movement. The intermittent compression was repeated about five times a minute; the glottic spasm disappeared in about a quarter of an hour. The patient has had some attacks of the same kind since then, but the same compression of the phrenic nerve always proved efficacious.

The second case was in a confirmed tabetic patient. About ten minutes after every attack of spasm of the glottis, he felt a sudden constriction of the larynx and uttered a sound resembling hiccough; the suffocation gradually increased and he fell into a state of quasi-syncope. In this case, the compression of the phrenic nerve caused the attack to cease immediately; it recurred, however, on interrupting the compression; and after a few days all laryngeal trouble disappeared completely.

These observations appear to show that compression of the phrenic nerve is a good means of restricting, at least temporarily, the oft very dangerous symptoms associated with glottic spasm. Since the movements of the glottis do not depend on the phrenic nerve, it must be admitted that the sudden compression of this nerve acts indirectly, by provoking certain complex, or more or less generalized phenomena of inhibition.—*The Hahnemannian Monthly.*

The Drinking Treatment for Typhoid.—Some years ago M. Debove recommended the use of large amounts of water internally in typhoid fever. "I make my patients drink," he said; and

this was his chief special treatment. The object was to dilute the fluids of the system and wash out the toxines in the blood and intestinal canal. M. Lichteim adopted this treatment and reports nine successful cases. Recently M. Maillart, of Geneva, has made an elaborate study of this mode of treatment, reporting fourteen cases in detail, of which one died. (*Revue de Médecine*, November, 1893, and March, 1894.) Maillart thinks that the water-drinking method should be "erected into a special method of treatment." In order to secure the proper results the patient must drink five or six litres (quarts) of water a day. There is no contra-indication for the use of water in this way, for it does not weaken the heart, but has rather the contrary effect. The results obtained are a progressive lowering of the fever, a disappearance of dryness of the mouth, a marked sedation of all the nervous symptoms, and an improvement in the action of the heart and kidneys. There is an abundant diuresis and an unusual increase in the perspiration. Urea is carried off in large amounts. The treatment does not shorten the course of the disease, but simply makes it milder and less fatal. Patients, we are told, take kindly to this method. The typhoid patient takes usually six to eight glasses of milk daily, and if to this are added ten to twelve glasses of water, the diluent effect should be very great.—*Ed. Med. Rec.*

LITHÆMIA.—On March 6th Professor DaCosta gave by invitation a lecture in the Medical Hall of the University of Pennsylvania on the Pathology of Lithæmia, and, taking this for a foundation, he indicated a line of treatment which, coming from such an authority, is worthy of full consideration. The term "lithæmia," as applied to a morbid state, involves much more than the presence in the blood of a mere excess of lithic or uric acid. Lithæmia is a modified form of gout, and appears to be the form in which gout particularly manifests itself in America; but in lithæmia deposits of urates in the vicinity of joints are not observed, and attacks of acute arthritis of toes and fingers do not occur. There may be, however, a painless enlargement of the terminal finger joints, especially in elderly people, with impairment of function. The cardiac hypertrophy and kidney degeneration of true gout do not belong to the clinical history of lithæmia. The blood tension may be increased, but it is so to a less degree than in gout, and the arteries do not exhibit the atheromatous condition that characterizes the graver form of the disorder. The symptoms have already been described by the same authority. The main points are the impaired digestion, muscular pains, neuralgic attacks and pains in the tendons, indisposition to exertion, irritability of temper, depression of spirits, frequent and severe attacks of vertigo and migraine, sleeplessness, and drowsiness during the day. The main factor in treatment is regulation of the diet. The food ought to be mainly vegetable. Green vegetables (especially asparagus), fresh fruits, stale or toasted bread, with the white meat of poultry and fish, should constitute the chief items. An excess of carbohydrates, especially sugar, should be avoided. The only drink to be allowed is water, and sufficient quantities should be taken to flush the kidneys. Mineral waters may be ordered to accomplish the same purpose. Alcohol should be positively excluded. Exercise in the open air is also an important part of the treatment. But little drug treatment is required. Saline laxatives are very useful. A combination of lithium carbonate (2 gr.) with extract of nux vomica ($\frac{1}{6}$ gr.) given after meals is of special value. In attacks of lithæmic migraine a few doses of a mineral acid, it is claimed, will often cause the symptoms to disappear.—*Lancet.*

THE MEDICAL BUCCANEER.—The latest development of the profession in the United States is the "buccaneer" physician. An American contemporary says it is of no use to talk about medical reform and elevating the profession, whilst the "buccaneer" is allowed full liberty to carry out his system of medical practice. "He plays his part in manifold ways. He often roams in high places, and may even wear a professor's gown. He looms up at medical conventions, and, indeed, may be an author of no mean position. He is always clamoring for reform; he wants to reform the code, let down the bars and clear the way, so that his pilfering career may be unhampered. His neighbor stands in mortal terror of him, because he well knows that should he be required to call him in consultation the new arrival would quickly oust him and coolly take possession himself. He performs impossible operations, and always cures every case, and the unsuspecting, simple-minded, honest plodder, as he reads his statistics, is quite overcome with amazement and admiration. He has a sneaking way of advertising. To get into the regular column of the quacks would be to mix with the common herd; moreover, it is highly expensive; therefore he has himself interviewed, or one of his helpers will see to it that while the great man speaks, full stenographic notes are taken, and the thing, highly colored, will be spread broadcast in the early morning press." The genus is not altogether unknown in this country, but they are happily few in number and their field of work is extremely limited.—*Hosp. Gaz.*

TOBACCO AN ALLY OF TEMPERANCE.—James

Payn in *London News*: It is in a great part due to the influence of club life, Lord Salisbury tells us, that the custom of drinking has almost disappeared among the upper classes. Something of this is perhaps owing to the influence of opinion, for even a toper who thought nothing of getting drunk in congenial company and among bacchanalian friends, might hesitate to do so among strangers, but the chief cause of the improvement is undoubtedly the introduction of the after-dinner cigar.

Tobacco was frowned upon at home before our womankind began to appreciate its soothing effect upon us, and the smokers naturally took refuge in their clubs. Then it very soon did away with the snuff-box, and more gradually, but quite as surely, with the magnum of claret after dinner. A few old gentlemen still stickle for a glass or so—which two generations ago would have been a bottle—but the minds of most men who have dined will turn, like a flower to the sun, to the smoking room.

The speeches which follow our public dinners would now be quite intolerable to the young and middle-aged but for the mitigation of tobacco. The ignorance of the anti-everythingians about social matters is proverbial, but it is never so clearly demonstrated as in those who denounce tobacco on the ground that it leads men to drink; it does lead them to drink coffee. It may be said, if it pleases the opponents of the fragrant weed, that it is only one bad habit driving out another, as the gout expels a fever, but the fever is, at all events, far the more dangerous of the two.

THE SURGICAL INSTRUMENTS OF ANTIQUITY.—Dr. Deneffe, of Antwerp, after twelve years of labor in collecting material has published a most interesting treatise on ancient surgery. He has obtained between six and seven hundred specimens, including copies. Among them, says a writer in *The Medical Magazine*, are uterine and anal specula, knives, lancets, forceps or volsellæ, scissors, spatulæ, all kinds of sounds, scarificators, rugines or raspatories, probes, cauteries, caustic-holders, cannulæ, needles, curettes, hooks for the extraction of the fœtus in difficult labors, saws, ointment tubes, a needle for couching (cataract), tooth-forceps, urethral sounds (male and female), besides many others we have not space to mention.

With the exception of the trivalve and quadrivalve uterine specula, which can compare with the finest modern work, the instruments of those days were simple in the extreme. To carry out their ideas the early surgeons had to rely on intelligent locksmiths, who, it must be said, faithfully followed instructions, and in some cases produced instruments of exquisite finish. Usually they served a double purpose, one end of the instrument being used as a curette, the other end as a spatula, and so on. Sometimes knives, curettes, or elevators of different sizes formed the two extremities. The various kinds of forceps were generally only used for one purpose; some, however, are supplied with an aural curette, a probe, etc., the object being to simplify and to make the surgeon's case more portable.

Most of the instruments of antiquity are bronze, which chemical analysis has shown to be composed of copper and tin, sometimes lead, and more rarely, zinc being added; in exceptional cases gold and silver have also been found. Some of them are made entirely of copper, as the ancients knew how to temper this metal by heating it to redness and then rapidly plunging it into cold water. Silver instruments are rare, but silver was used in some instances to damascene those made of bronze. Fragments only of iron instruments have come down to us. According to Lepsius, the Egyptians employed iron 4,000, and the Greeks 1,450 years before Christ. Dr. Deneffe points out, too, that Homer frequently refers to this metal. There are some specimens of knives with iron blades and bronze handles; also an iron hook in a bronze handle for extracting the fœtus from the womb. As iron is perishable it cannot be stated positively to what extent it was used.

According to the author, the instruments found at Herculaneum and Pompeii (first century) lack the finish of those discovered in France, Belgium, and near the Rhine, and which date from the second and third centuries. He does not think, however, that the latter were made in the countries where they were found. It is probable they were imported into these Roman colonies by surgeons, who supplied themselves in Italy before starting.

A remarkable thing about all these instruments is that they are made entirely of metal; wood, ivory, or shell never being used.—*Med. Rec.*

GONORRHŒA AT THE AGE OF ONE HUNDRED AND THREE.—The interest that may attach to the case presented herewith will be by reason of the advanced age of the patient. It is exceptional enough to meet a man who has passed his one hundredth year, but to find a man at that age suffering from an acute attack of gonorrhœa or chancroids is still more exceptional.

Some doubts may be entertained as to the correctness of the age given, but his general appearance, his open frankness in giving all particulars, and the absence of any apparent motive for falsification, go to confirm it, and a severe cross-examination failed to alter any of his statements.

Although no special time is given for the decadence of the sexual functions in the male, the general impression seems to be that the sexual desire is on the wane and disappears long before the allotted "threescore years and ten." Yet

here is a man, aged one hundred and three, who "feels that he needs it," and in getting it is unfortunate enough to contract chancroids at the age of one hundred, and gonorrhœa at the age of one hundred and three.

In the following history the facts bearing on his age and manner of contracting this attack are given somewhat in detail, because of the possibility of doubt of the former, and to illustrate his state of mind in regard to the latter.

A. C., aged one hundred and three, native of Ireland, occupation formerly longshoreman, at present none, presented himself on January 30, 1894, at the Dispensary of the University Medical College, for treatment.

Examination revealed a copious characteristic gonorrhœal discharge, which he stated was only of a few days' duration. Genitals well developed and showing no signs of senility. Complains of painful urination; general health otherwise fair.

In answer to questions he stated as follows, given partially in his own words:

"Didn't know more than that chair about a woman till fifty years of age, because at home you dasn't." Then he married and shortly after he left Ireland. Spent five years in the mountains of Wales, and forty-eight years ago came to this country. His oldest living son is now fifty years, and his youngest thirty-three years of age. His second wife died twelve years ago. This is the fourth attack of venereal trouble he has had since—the previous attack, three years ago, was chancroids, which was also treated at the University dispensary, and of which he got well in about two weeks.

He feels that he needs a woman. He contracted this gonorrhœa from a woman whom he had befriended and assisted; her husband had died some six months previously. She frequently came to him complaining that she had no bread for her children, and he used to "throw" her fifteen or twenty-five cents when he had it, because so long as he had a few cents in his pocket, he could not see her children go hungry. She used to come in and drink tea and take a bite, and play a joke, till it came to this that she seduced him. "That's the way she paid me off for helping her children, and I think it will be the end of me."

The following question suggests itself in connection with this case: Could there be any causative relation between the late appearance of sexual activity and its persistence to this advanced age?—A. E. Isaacs, M.D., in *Med Rec.*

MUSCULAR RHEUMATISM.—The following abstract in the *British Medical Journal* of an article by Leube is from the *Deutsche med. Woch.* in which he argues that muscular rheumatism is not a local disease, but a general infective disorder with special localizations in the muscular system. The mode of onset of the disorder varies, but is sometimes marked by shivering and prodromal fever and by *malaise* of some duration. In some cases the muscular pains may be widespread, and occasionally endocarditis is observed. Taking a series of about 200 cases, he found that fever was present in about one-third; it was seldom higher than 102° F., and generally fell after two days in hospital either rapidly or after some irregular fluctuations. In one-sixth of the cases there was a cardiac murmur at the time of admission; it is generally supposed that endocarditis, which is so common a "complication" of joint rheumatism, scarcely ever occurs in relation with muscular rheumatism. It is not possible to say in how many of the cases in which a murmur was observed this was present before the onset of the muscular rheumatism, but it was noticed that in half the cases the murmur grew fainter or disappeared while the patient was under treatment, and that whereas in all the cases together, fever was observed in one-third only, it was present in two-thirds of those in which there was a murmur. Moreover, in a few cases the murmur was observed to appear after the onset of the muscular rheumatism. Three such cases are related by Leube, but in one there was at a later stage muscular rheumatism, and in another the patient, at the time the muscular rheumatism came on, was under treatment for gonorrhœal urethritis, vaginitis, and cervical endometritis. Leube states that he has seen joint rheumatism come on after muscular rheumatism in several cases, and points out that muscular rheumatism is frequently observed after affection of the joints. Pleurisy was in a few cases observed as a complication of muscular rheumatism, but albuminuria only once. Leube concludes that it is highly probable that the infective material in muscular rheumatism is an attenuated form of the virus of acute rheumatic arthritis. In Wurzburg, where his observations were made, the cases of muscular rheumatism coming to the clinic were, as a rule, few in number and isolated, but at one time recently a large number of cases applied, so that half a ward was filled with them; this would appear to indicate an epidemic influence. He only mentions the question of treatment incidentally, but would seem to have relied on salicylate of sodium.—*North Am. Prac.*

TREATMENT OF RED NOSE.—Helbing (*Therap Monatshefte*) calls attention to the treatment of red nose—a condition of little importance, it is true, but dedidedly annoying to the possessor. The condition he refers to is the bluish-red color of some noses upon remaining for some time in a warm room, coming in from the winter air, etc. The treatment he advises is the systematic application of the galvanic current. Both poles are

applied to the nose and are continually moved about. The strength of the current he has regulated by the amount of burning complained of by the patient. Five to eight elements of an ordinary battery suffice. If the patient is very sensitive, the anode may be applied to the zygoma and the nose gently stroked with the cathode. This application is followed by an intense redness of the skin, which lasts for an interval of two to forty-eight hours. Too strong currents must be avoided on account of the excessive irritation they produce. The applications are repeated at intervals of two to three days. The method requires patience, and a considerable number of applications (at least ten to fifteen) and the author has had to hold as many as thirty sittings. The author has used the method in twenty-one cases, and always with success, and gives a report of two of the most obstinate cases.—*Cincinnati Lancet Clinic.*

Locomotor Ataxy.—Dr. Forbes Winslow says: In June I was consulted by the friends of a man aged thirty-four years, who was suffering from marked symptoms of locomotor ataxy. The complaint had been gradually developing for the last two years, and the supposed cause was a fall from his horse in the hunting field. There was complete want of co-ordination in his movements, he was quite unable to walk without the assistance of two sticks, and when seated in a chair he could not raise himself without assistance. Phosphate of soda in combination was injected into the neighborhood of the spinal column. After the twenty-fifth injection marked improvement became visible, and on the completion of the fiftieth injection my patient was completely cured. He could run up and down stairs, all the want of co-ordination had disappeared, there was positively nothing wrong to be detected in his gait, and all sticks and mechanical helps were thrown aside. Since I first became cognizant of the treatment I have tried it in other cases, and in all the disease appears to be yielding to its use. It has been tried with the utmost success in Belgium, and the above is in itself so important as to warrant my publishing it. —*Med. Brief.*

The Pupils in Anæsthesia.—In using chloroform it is advisable, after the patient has become apparently insensible, to watch the pupils as a guide to the state of the medulla. After complete anæsthesia is induced, the pupils, which were previously contracted, begin to dilate. This dilatation *is the danger sign!* It indicates the cardiac respiratory centres are beginning to be inhibited, or probably paralyzed, by the anæsthetic, and warns the operator to suspend, temporarily at least, the inhalation. Often cases are witnessed wherein chloroform is being administered in which all the limbs, apparently flaccid, when raised and let fall, drop to the table as if dead, yet retain consciousness of pain. In such the pupils are well contracted; a few moments after the contraction they will begin to dilate, and then all sense of pain is abolished. At this stage the danger of chloroform, and also of ether, is, indeed, considerable, if the anæsthetic is carried too far; for then the protective living wakefulness of the medulla is being dangerously overcome.—*Medical Brief.*

Treatment of Asthma.—Prof. Dieulafoy. 1 *Early stage of paroxysm:*

℞—Cocaine muriat, . . . . grs. xv.
Aquæ dest, . . . . . ʒv.
M. ft. sol.

Sig: Apply this to the interior of the nasal cavity. May be applied to the nasal cavity of the throat by means of the spray.

If this does not cut short the attack one fluid dram of pyridin may be poured on a handkerchief and kept near the patient, also stramonium leaves and nitrate paper may be smoked.

2. *At height of paroxysm:*

℞—Morphine muriat, . . . . grs. iss.
Aquæ dest, . . . . . ʒijss.
M. ft. sol.

Sig: Inject half a hypodermic syringeful of this solution, and repeat in a quarter of an hour if necessary.

3. *Inter-paroxysmal period.* — Administer twenty to thirty grains of iodide of potassium in twenty-four hours. Of course its continuance is governed by effects. May in some cases with advantage alternate the potash treatment by giving it for two weeks and then give belladonna for two weeks. At the same time a course of arsenic should be given at intervals.

4. If there be *emphysema* inhalations of compressed air.—*Am. Pract. and News.*

Treatment of Inebriates in Switzerland.—The Foreign Office has published a useful paper in the miscellaneous series of reports giving a translated summary of laws in force in Switzerland regarding the treatment of inebriates. The laws and regulations in the twenty-two cantons appear to differ but little from each other in their essential points, and are considered in principle as effective measures against intemperance. Habitual drunkards are liable to fine and imprisonment, and compulsory confinement in homes or houses of correction; while considerable responsibility is incurred by publicans who supply strong drinks to children, to those already intoxicated, or to those who are by reason of their intemperance forbidden to enter taverns. The report for the year 1892 of the Ellikon Home for Inebriates shows that for 1891 of those under treatment 37.5 per cent. remained

abstainers, 32.5 per cent. remained intemperate, and 30 per cent. relapsed.—*Br. Med. Jour.*

THE EARLY MANAGEMENT OF CLUB-FOOT.—Dr. De Forest Willard, in a clinical lecture of this subject offers the following conclusions:

1. The first month of life is the period of greatest growth, and to neglect treatment of club-foot during this time is to permit the bony and soft tissues to become permanently misshapen.

2. Rectification should be commenced from birth by various simple measures.

3. Correction can be accomplished by a variety of dressings.

4. Manipulation is exceedingly important for the production of a flexible foot.

5. Apparatus should be applied as soon as the foot and leg are in position for its application.

6. Rectification and manipulation should be continued up to the age when the infant is ready to walk, at which time, if the foot cannot be placed upon the sole firmly operative measures should be instituted.—*Therap. Gazette.*

PYOCTANIN INTERNALLY IN MALIGNANT GROWTHS OF INTERNAL ORGANS.—Dr. O. Maibaum (*Wiener Medizinische Presse*) has tried this drug in the treatment of internal neoplasms of a malignant nature, in Prof. Wassliew's clinic in Dorpat, Russia. He administered it three times a day in doses of six cgms. (one grain), in pill form, or associated with belladonna as a suppository:

| | | | |
|---|---|---|---|
| R.—Pyoctanin, . . | 0 | 06 | (gr. j). |
| Extr. Belladonna, | 0 | 02 | (gr. 1-5). |
| Cocoa Butter, . | 2 | 0 | (grs. xxx). |

In a case of pronounced cancer of the stomach an astonishing result was obtained; the patient increased in weight, the vomiting and eructations ceased and his appetite re-appeared. In another case where there were adhesions with the liver and metastases, improvement followed, but the patient soon left the clinic. Also in cases of carcinoma of other organs it was found to be of great service.—*Med. and Surg. Rep.*

MENTHOL IN SKIN DISEASES.—Since the connection of "dermographism" and urticaria with intestinal disorders has been recognized, more attention has been paid to the influence of intestinal disorders on the condition of the skin. According to recent investigations there are many cases of common acne where the patient shows a great excess of indican in the urine; but as soon as intestinal putrefaction is stopped by the internal administration of menthol in small doses (0.25 gramme), the skin eruption becomes, *pari passu*, markedly improved with the disappearance of the indican which ensues.—*Lancet.*

CHLORATE OF POTASH IN CARCINOMA OF THE STOMACH.—Professor Brissaud, on account of the well-known action of the chlorate of soda in affections of the mouth, tried the less poisonous salt, the chlorate of soda, in gastric cancer. In a whole series of cases, he has obtained very favorable results. The hæmorrhages ceased, the cachexiæ improved, and even the tumor disappeared, in the course of six weeks. From the large number of cases it cannot be assumed that they were all cases of mistaken diagnosis. As the soda salt is much less poisonous than the potash preparation, it may be given in much larger doses. It is best prescribed in a watery solution, 8, 10 or even 16 grammes in 100 grammes of water; to be taken by the teaspoonful. The only contra-indications is the presence of even a slight albuminuria. In spite of these large doses no symptoms of poisoning were observed. The greater solubility of the soda salt would seem to indicate it of value in buccal diseases.—*The Hahnemannian Monthly.*

RECTAL ALIMENTATION.—Huber has recently shown by actual experimentation, that from fifty-eight per cent. to seventy per cent. of fluid egg albumen may be absorbed from the rectum without peptonization. A slightly larger proportion of albumen was absorbed after peptonization, but less than half as much when chloride of sodium was not added. The proportion of salt found necessary to stimulate absorption, was one gramme, or one-fourth of a drachm for each egg.—*Mod. Med. and Bact. World.*

DIET IN ULCER OF THE STOMACH.—Doctor Roux declares that in ulcer of the stomach, foods should be chosen that are digested in the intestines, such as milk, eggs, starches, fruits, and green vegetables; farinaceous substances and eggs should constitute the chief diet. Lentils are preferable to potatoes and beans; among green vegetables salads are excellent; green peas, turnips and carrots should be mashed before eating. Light puddings are easily digested, especially if they contain eggs.—*Journal d' Hygiene.*

VOMITING OF PREGNANCY.—A writer in the *Lancet* says: "I have not failed once for many years, by a single vesication over the fourth and fifth dorsal vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period of gestation, no matter at what stage I was consulted. The neuralgic toothache, and pruritis pudendi of the puerperal condition yielded as readily, and to one application."—*Med. Summary.*

THE suit of Dr. Amick against the St. Louis Clinique and Faculty of the College of Physicians and Surgeons, of St. Louis, has been decided in favor of the plaintiff.—*Am. Med. Journal.*

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, JUNE, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## THE SURGICAL TREATMENT OF PULMONARY CAVITIES.

The tendency of the surgery of to-day is to invade the domain of medicine at points, which a decade since were thought to be forever exempt from the knife. Perhaps the most fashionable disease of to-day, from both a medical and surgical standpoint, is appendicitis. Every medical journal we read has accounts of operations, cases, notes and conclusions in regard to this recently fell disease. It must give way, however, to something new, for appendicitis, even surgically considered, is not new in this rapidly advancing age. What will be the next grand achievement of antiseptic surgery? Pulmonary consumption is to-day, by far and away, the most dreaded disease we have to cope with. Notwithstanding all that has been done in the way of improved treatment in the past dozen years, or since the true nature of the disease has been fully recognized, it stands the *bête noir* of our profession. And he must be a courageous and sanguine man, who will stand up to, and fight with all the weapons at his disposal, this monster, tuberculosis.

Not to mention medicines without number, we have antiseptic agents as such; food, clothing, dog's serum, exercise, inhalations, counter irritation, goat's blood, hygienic measures, hydrotherapy, injections, mineral waters, health resorts, ozonized oxygen, the pneumatic cabinet, and many other agents at our disposal in the management and treatment of our patient. Yet with all these recent advances, the disease goes on with its deadly certainty, and perhaps no more persons are *cured* to-day than were cured twenty-five years ago, though we think it will be admitted that a greater margin of life is given to persons in good circumstances than could have been done at that time.

The surgeon has made the attempt to step in where the physician has so lamentably failed, and now proposes to relieve the latter of some of his duties by treating phthisical cavities.

This idea has been before the profession for some time, but it is only lately that it has begun to assume a tangible form, and to be reckoned among the means which have to be considered for the cure of phthisis pulmonalis. Cases of resection of portions of the lung with successful results, of aspiration and drainage, have been from time to time reported, but the operation has not taken hold of the professional mind generally. When a cavity has formed, the ordinary medical man loses hope, and unless he be both sanguine and courageous, is very apt to abate his zeal in the pushing of curative (*sic*) measures, and gradually drops into those which are alleviative in their nature. Had he the cavity alone to deal with, many a man with admirable courage would be willing to attempt its cure, and would spare no time or pains to attack the foe in its lair. But it is so rare to get a single cavity without adjacent lesions, without extensive surrounding pulmonary disorganization, that the attending physician has it borne forcibly in upon his mind that whatever benefit might accrue to the patient from surgical operation in the way of alleviating certain symptoms, such as profuse or fœtid expectoration, it could only be temporary, and he would be sanguine, more, we think, than wise, who would look for lasting benefit to his patient by any surgical procedure which has yet been devised. So many serious complications are likely to follow incision of the pulmonary tissue, and so many sudden fatal results have followed surgical interference with phthisical cavities, even when undertaken by the most experienced and skilful men, that he will be wise who relegates the work to another, who, with less admirable courage than that of inaction, is willing or anxious to undertake the operation.

Dr. Clifford Allbutt has recently said, "that

ordinary phthisical cavities will lend themselves to systematic respiration, or other tapping is not at present probable."

In contradistinction to these views we may note the conclusions of Dr. N. P. Dandridge in a paper recently presented to the N. Y. State Medical Association. The writer is certainly careful and discriminating, and our readers will be interested in his conclusions, which are practically that a certain number of lung cavities can be successfully dealt with by incision and drainage; that cavities in the lower portion of the luugs—if single and superficial, and the general condition of the patient permits (how rare!)—should always be opened. Cavities at the apex should only be opened where free and persistent expectoration is present, and has resisted treatment, and the rest of the lung is not involved.

Abscess, gangrene and hydatid cysts should be opened and drained whenever they can be located.

Closure of the pleura should be present before evacuation of a cavity is attempted.

In cases of pyo-pneumothorax the fistulous tract should be explored, and any cavity freely laid open by the cautery.

Cavities that have been opened are best treated by packing with gauze, preferably iodoform.

The further careful trial of such agents as iodoform, chlorine gas and chloride of zinc is desirable to determine as to whether the tubercular infiltration may not be modified by them.

It is very desirable, for the further extension of surgical interference in pulmonary cavities, that the means of locating such cavities and of determining their size, and the exact character of the tissues that overlies them, should be perfected by further study, and for the accomplishment of this the surgeon must look to the physician.

In our modest opinion, the author, by guarding the operation so carefully, almost precludes any operation at all. We certainly agree that the attendant circumstances cannot be too carefully considered before any active surgical interference is permitted.

---

CHRONIC CONGESTION OF THE LARYNX.—

℞—Creosote, . . . . . gram. 15.
Carbonate of magnesia, . gram. 6.
Distilled water, . . . . gram. 90.

Teaspoonful in a pint of boiling water as inhalation.

## IS CHOLERA COMING?

Thanks to our excellent system of quarantine and to the activity of our local boards of health throughout the Dominion, we have heretofore escaped this dread scourge, which has caused so much alarm in Europe and such dire loss of life in Asia and the Orient. Last summer many people on the American Continent were apprehensive of a visit, fearing its introduction through the expected influx of visitors to the World's Fair.

As it resulted, the number of people from Europe and Asia visiting the Fair was small and the Continent escaped, whether for this reason or not it would be difficult to say.

It has again made its appearance in the East. It has not been stamped out by the winter even, in Russia, several centres being reported both in Turkey and Russia. With the coming of spring it has shown itself in Constantinople, and some of the foreign legations have left for more salubrious quarters. In several towns and villages of Poland it is now admittedly epidemic. Portugal has a large number of cases of what is perhaps euphemistically called *Cholerine*, both in Lisbon and in the country districts.

It has been claimed by Lachmann that, in Hamburg during the last epidemic, the water supplied by the city did not contain bacilli, or at least they could not be demonstrated in it, as also that the epidemic did not disappear from the city after the exclusive use of boiled water from the reservoir, and that hundreds of persons were seized with the disease who had never drunk city water at all. He also shows that in small towns not supplied with water from a general source, the percentage of cases was higher than in Hamburg which was so supplied.

The truth seems to be that the dejecta of cholera patients contain both bacilli and contagion, and if we look to the hibernation of the disease, as in Russia and Turkey during the past winter, we are led to the conclusion that the contagion is more active than the cholera bacilli. This has also been shown by Pettenkoffer and others.

To be most active the cholera dejecta must be dry, and the bacilli retain their virulent properties for an indefinite time when they are des-

sicated. It has been a matter of long experience, that the worst epidemics occur in dry seasons.

Like enteric fever the spread of the disease is always through dejecta and material contaminated by them.

Looking at this, we may well be on guard for the coming hot months. There is no specific treatment for the disease yet known, and the best that can be done for it, once found, is to treat on general principles. In the matter of individual and family prophylaxis, general principles again are all that can be advised. Keeping the system well up to the highest normal plane of health; pure water, rendered so when there is any doubt, by boiling and filtration; plain nutritious food and plenty of rest; avoidance of over-fatigue and worry, all should be urged upon the community with especial care if the disease shows, even at a considerable distance. We took occasion last year to give our readers the benefit of the experience of those who best know how to deal with the disease, and we shall again as the season advances, endeavor to keep them posted on any new developments which may be to the fore.

## GUAIACOL.

The use of guaiacol as an antipyretic has recently excited a great deal of discussion.

An American authority cites some twenty experiments with guaiacol in phthisis, pneumonia, tertian ague, typhoid fever, rheumatic fever and influenza.

The dose was about thirty drops rubbed on the skin. In many cases the temperature had come down from 104° F. or thereabouts to the neighborhood of 100° within a few hours of the application, and remained down for several hours. In nearly every case, there was profuse sweating as the temperature descended.

The trouble with the method, however, was that most of the patients suffered more or less from a depression of the bodily powers, during the fall of temperature, in many cases of a nature extremely disquieting to the patient.

The prevalent sentiment regarding febrile manifestations seems to be that reasonable temperature, say not more than 103°, have in most cases very little disturbing effect either on the patient's comfort or on the outcome of the disease, and could be sufficiently controlled by absolutely safe remedies, such as diuretics, aperients, etc.

Such elevations of temperature correspond to that overproduction of heat which results from the natural effects of the tissues to destroy morbific material—the law of life being, that all increases of destructive metabolism is accompanied by increase of heat. So long as this material continues to irritate the tissues the fever must continue, the issue being in the majority of the cases, victory for the tissues.

To check this natural process forcibly without removing the offending matter, is an unwise and injurious proceeding on the part of the therapeutist. The only proper method is to remove the offending matter from the body, or, if this cannot be done, to strengthen the tissues in their struggle, avoiding all depressing drugs.

In hyperpyrexia, however, when the temperature remains above 104° for days, hurting the heart-muscle, or when the nervous system of the patient is greatly disturbed, and the excretions and secretions are checked, we have to do, not with the natural heat-production of the internal contest, but probably with derangement by the hot blood of the nerve-centres which regulate the production of heat and its escape from the body. In these cases active interference is called for. Cool sponging or bathing, etc., are to be preferred to the use of depressing drugs.

Occasionally the modern febricides may be used with temporary benefit. Here, along with antipyrine and acetanilide, guaiacol may be used, but with great caution. It might be used in less quantity, say less than thirty drops of guaiacol.

## MEDICAL EXAMINATIONS.

### TORONTO UNIVERSITY.

*Medals.*—Faculty gold medal, W. J. McCollum; first faculty silver medal, H. N. Rutledge; second faculty silver medal, W. E. Crain; third faculty silver medal, H. A. Johnston.

*Scholarships.*—Third Year—First and second scholarships divided between M. Currie and A. K. Merritt; second year—first and second scholarships divided between W. Goldie and E. L.

Roberts; first year—first scholarship, J. H. Elliott; second scholarship, A. H. Addy.

George Brown memorial scholarship in medical science—in order of merit—W. E. Crain, C. E. Smyth, J. D. Curtis, R. B. Wells, W. J. McCollum, J. Bull.

*Degree of M.B.*—T. Agnew, W. H. Alexander, W. A. Ball, J. Becket, W. L. Coulthard, G. M. Ferris, L. O. Fiset, E. B. Fisher, A. E. Gardner, E. D. Graham, G. B. Gray, W. A. Hackett, R. G. Laycock, K. C. McIlwraith, J. W. McIntosh, H. MacLaren, J. Park, G. D. Porter, H. H. Sinclair, F. W. Smith, J. Stenhouse, W. Stephen, F. W. Stockton, T. Wickett, H. L. Reazin, D. J. Armor, W. B. Boyd, J. Bull, B. Campbell, F. Coleman, W. E. Crain, J. Crawford, J. D. Curtis, H. A. Cuthbertson, J. W. Ford, A. Galloway, A. B. Greenwood, H. Guelph, N. M. Harris, R. H. Hastings, T. C. Hodgson, H. A. Johnston, A. H. Jones, J. A. Lawson, R. M. Lipsey, D. A. McClenahan, W. J. McCollum, J. F. McKee, J. R. Mencke, H. N. Rutledge, J. P. Sinclair, C. E. Smyth, N. C. Wallace, R. B. Wells, J. A. White, T. H. Whitelaw.

ONTARIO MEDICAL COUNCIL.

*Final Honors.*—W. T. Connell, Spencerville.

*Passed.*—W. H. Alexander, Bolton; H. E. Armstrong, Orono; T. Agnew, Belgrave; W. J. Anderson, Shanley; J. R. Allan, Napanee; D. J. Armour, Cobourg; W. B. Boyd, Uxbridge; J. H. Bull, Weston; J. L. Bradley, Airlie; H. A. Cuthbertson, Wyoming; W. E. Crain, Brockville; J. Crawford, Toronto; B. Campbell, Parkhill; J. D. Curtis, Middlemarch; Frank Coleman, Hamilton; A. L. Danard, Allenford; T. G. Devitt, Bobcaygeon; T. S. Farncomb, Newcastle; J. W. Ford, Woodham; F. J. Farley, Smithfield; A. K. Ferguson, Kirkton; G. H. Field, Cobourg; C. C. Field, Cobourg; H. R. Frank, Brantford; A. G. A. Fletcher, Toronto; A. B. Greenwood, Newmarket; E. D. Graham, Sutton West; G. B. Gray, Elora; A. Galloway, Beaverton; R. J. Hastings, Guelph; D. H. Hogg, London; N. W. Harris, Toronto; T. C. Hodgson, Beaverton; Gertrude Hulet, Norwich; F. W. Hughes, London; W. A. Hackett, Belfast; C. M. Kingston, West Huntingdon; J. A. Lawson, Brampton; R. M. Lipsey, St. Thomas; J. D. Leith, Dromore; H. D. Livingstone, Georgetown; W. H. Millen, Cottam; F. W. Morden, Picton; S. H. Murphy, Renfrew; J. R. Mencke, Toronto; G. S. McCarthy, Ottawa; D. A. McClenahan, Tansley; J. McMaster, J. W. McIntosh, Toronto; L. V. McIntosh, Strathmore; W. J. McCollum, Toronto; J. P. McKee, Aurora; A. A. McCrimmon, St. Thomas; C. F. New, London; E. L. Proctor, Toronto; G. D. Porter, Brantford; J. Park, Feversham; G. D. Parfitt, London; J. Pritchard, North Wakefield, Quebec; A. B. Parlow, Iroquois; H. N. Rutledge, Streetsville; J. P. Russell, Toronto; J. Reeves, Eganville; C. E. Smyth, Toronto; W. Stephen, Anderson; F. W. Smith, Sheffield; C. B. Shuttleworth, Toronto; J. Seagar, Ottawa; J. P. Sinclair, R. B. Wells, Toronto; T. H. Whitelaw, Guelph; N. C. Wallace, Alma; J. D. Windell, Pontypool; J. A. White, Oakwood; P. D. White, Glencoe; T. Wickett, Belleville.

PRIMARY EXAMINATIONS.

*Honors.*—E. L. Roberts, Lynedoch, Ont.

*Passed.*—W. L. Addison, W. H. Alexander, E. H. Arkell, D. Buchanan, G. S. Burt, J. F. Boyle, T. H. Bier, T. C. Bedell, G. W. Brown, W. J. Beasley, W. G. N. Byers, B. G. Connolly, G. E. Cook, D. T. Crawford, H. Clare, Jennie Drennan, W. F. Drysdale, J. J. Elliot, J. H. Ferguson, T. H. Farrell, W. Goldie, J. S. Goodfellow, C. Graef, F. W. Hodgins, L. Hogg, W. Hird, G. V. Harcourt, E. S. Hicks, W. J. Henderson, C. G. Johnson, W. W. Jones, W. D. Keith, L. Lawrason, J. S. Morris, J. D. MacLean, H. G. S. Murray, R. Moore, G. Musson, Maggie MacCallum, H. Macklin, George More, G. E. Millichamp, W. J. Malloch, H. W. Miller, W. McDonald, A. S. McCaig, J. R. McRae, H. S. McDonald, W. B. McKechnie, P. S. McLaren, N. W. McInnes, J. M. McCarter, D. W. McPherson, C. S. McKee, W. H. Nichol, J. H. Oliver, J. I. Pratt, A. W. Partridge, H. G. Pickard, A. B. Parlow, J. Pritchard, E. K. Richardson, H. H. Ross, F. S. Rounthwaite, E. Robinson, J. W. Routledge, J. A. Rannie, A. Ruppert, J. P. Russell, J. Reeves, A. A. Small, Emma Skinner, Maggie Symington, I. G. Smith, C. R. Sneath, D. W. Shier, Christina Sinclair, R. W. Shaw, W. J. Stevenson, F. W. Smith, J. S. Thorne, J. E. Tyndall, W. M. Teetzel, H. E. Tremayne, Adelaide Turner, Annie Verth, H. E. Wallace, B. E. White, S. H. Westman, W. H. Weir, E. C. Weekes, E. B. Webster, F. G. Wallbridge.

QUEEN'S UNIVERSITY, KINGSTON.

*University Medals*—Gold, Walter T. Connell, Spencerville, Ont.; silver, J. W. Morden, Picton, Ont.

*M.D., C.M.*—James Ross Allin, Bath; William J. Anderson, Glenstewart; Joseph A. Boucher, Charlo, N. B.; W. T. Connell, Spencerville; F. J. Farley, Brighton; G. D. Fitzgerald, Peterboro'; Cyril Fulton, Iroquois; P. J. Kinsley, Wolfe Island; B. J. Leahy, Kingston; J. W. Morden, Picton; A. R. Myers, Forfar; F. C. McCutcheon, Seeley's Bay; A. B. Parton, Iroquois; W. W. Sands, Sunbury; James Seagar, Ottawa; J. A. Stevenson, Stella; H. G. Williams, Kingston; W. A. Young, Kingston.

MANITOBA MEDICAL COLLEGE.

*Scholarships*—Intermediate—A. Hamman, $80; J. A. Watson, $60; H. P. Hargrave, $40; A. S. Munro, $100; J. R. McRae, $80; G. E. Curtis, $60.

*M.D.*—J. N. Andrew, F. W. E. Burnham, F. G. Rrien, George Camsell, J. S. Conklin, E. A. Crokat, S. J. Elkin, J. R. Gunne, Robert Goodwin, John Gahan, J. K. McLennan, Don. McDonald, H. C. Norquay, William Stevenson, J. S. Stewart, A. E. Versailles, C. M. Vanstone.

*C.M.*—F. G. Brien, F. W. E. Bnrnham, J. S. Conklin, E. A. Crokat, George Camsell, S. J. Elkin, John Gahan, Robert Goodwin, J. R. Gunne, Don. McDonald, J. K. McLennan, Wm. Stevenson, C. M. Vanstone.

WESTERN UNIVERSITY, LONDON.

*M.D.*—C. F. New, — Hughes, H. J. Ferguson, C. A. Elliott, A. F. Franklin, J. D. D. McLean, D. M. Dunn, D. McBain, H. Stevenson, J. C. Forsyth, W. Northrup, D. M. Kelly, A. J. Peel, B. F. Leys.

HALIFAX MEDICAL COLLEGE.

*M.D., C.M.*—Annie Isabel Hamilton, Arthur A. Dechman, Wm. F. Cogswell.

## ONTARIO MEDICAL ASSOCIATION.

We call our readers' attention to the announcement of the meeting of the above association, in Toronto, on Wednesday and Thursday, June 6th and 7th.

It will be seen by the programme which we append that the papers to be read will be varied and interesting. The officers have been indefatigable in their efforts to make this meeting a grand success. Several eminent American visitors have promised to attend and take part in the proceedings; a number of Montreal medical men have also been invited.

It is hoped that there will be a grand rally of the members of the Association, of whom, we believe, there are some 800. Medical men who are not members will be many times repaid by joining. The relief of a couple of days from the toil and anxiety of practice; the meeting with old friends, college mates, perhaps; the brushing against men who are enthusiasts in their line of work; the practical points brought out in discussing the papers; the open-hearted reception by the city *confrères*, all combine to make a visit to the convention highly pleasurable and profitable.

The objects of the Association are: The cultivation of the science of Medicine and Surgery; the advancement of the character and honor of the Medical Profession; the elevation of the standard of Medical Education; the promotion of Public Health; and the furtherance of unity and harmony among its members.

The officers are: President, L. McFarlane, Toronto; Vice-Presidents, T. K. Holmes, Chatham; Bruce Smith, Seaforth; J. C. Mitchell, Enniskillen; A. T. Rice, Woodstock; General Secretary, D. J. Gibb Wishart, Toronto; Assistant Secretary, J. N. E. Brown, Toronto: Treasurer, J. H. Burns, Toronto.

PROGRAMME.

The President's address, Dr. L. McFarlane, Toronto.

*Discussions*:—"The Treatment of Strangulated Hernia," J. Wishart, London; F. W. Strange, Toronto; R. Whiteman, Shakespeare; G S. Rennie, Hamilton. "Some Remarks on the Treatment of Chronic Diseases," J. E. Graham, Toronto; R. W. B. Smith, Seaforth; R. H. Preston, M.P.P., Newboro'. "The Use of Strychnia in Ordinary Practice, with Special Reference to Pneumonia and Chronic Heart Disease," J. H. Duncan, Chatham; J. T. Fotheringham, Toronto; A. C. Gaviller, Grand Valley; H. J. Saunders, Kingston. "Placenta Prævia," J. Algernon Temple, Toronto; A. McKay, M.P.P., Ingersoll; J. H. Burns, Toronto; G. T. McKeough, Chatham. "Symposium in Influenza"—"Its General Features," L. M. Sweetnam, Toronto. "Its Nervous Phenomena," S. Lett, Guelph; "Its

Thoracic Phenomena," Chas. Sheard, Toronto; "Its Digestive Phenomena," T. S. Harrison, Selkirk.

*Papers by Guests:*—"Cancer of the Breast in its Clinical Aspect," W. H. Hingston, Montreal. "Cholecystenterostomy and Gastro-duodenostomies by aid of Murphy's Button," H. Mynter, Buffalo. Papers are also expected from, A. R. Robinson, New York; G. W. Fox, New York; J. Stewart, J. C. Cameron, and T. G. Roddick, Montreal, etc.

*Papers by Members:* "Atrophic Rhinitis," J. Price Brown, Toronto. "The Contagiousness of Diphtheria," J. R. Hamilton, Port Dover. "The Artificial Feeding and Care of Infants," J. W. McCullough, Alliston. "Placenta Prævia—a Case," J. Campbell, Seaforth. "McGill's Operation for Prostatic Enlargement," A. McKinnon, Guelph. "Photographing Pathological Specimens," N. A. Powell, Toronto. "Treatment of Consumption," E. Herbert Adams, Toronto. "Law *vs.* Theory in Therapeutics," G. M. Aylsworth, Collingwood. "Inflammation of the Frontal Sinus," F. N. G. Starr, Toronto. "Cholecystotomy," R. Whiteman, Shakespeare. "Cephalhæmatoma," E. Bromley, Bright. "Surgical Interference in Typhlitis—When? How?" G. A. Bingham, Toronto. "Hip-joint Disease, Diagnosis and Treatment," W. W. Bremner, Toronto. "The International Congress of 1894,' E. E. Kitchen, St. George. "Uncured Gonorrhœa, Causes and Sequences," E. E. King, Toronto. "Placenta Prævia with Hydatids," A. Bethune, Seaforth. "Paralysis Agitans," E. H. Stafford, Toronto. "Treatment of Morphia Poisoning by Permanganate of Potash—Report of Experiments," Graham Chambers, Toronto. "Headache," D. Clark, Toronto. "Report of Cases of Abdominal Section, with Remarks on Same," A. Meek, London. "Supra-pubic Lithotomy—a Case," W. J. Gibson, Belleville. "A Note on the Therapeutics of Diuretin," A. McPhedran, Toronto. "Papilloma of the Ovary—Report of Two Cases, with Photographs and Drawings," Jas. F. W. Ross, Toronto. Papers are also expected from, A. B. Welford, Woodstock; J. M. Cotton, Lambton Mills; R. King, Peterboro'; L. Brock, Guelph; W. Britton, Toronto; J. E. Eakins, Belleville, etc.

THE RHEUMATIC NATURE OF CHOREA.—Sir Dyce Duckworth, of London, *Med. Rec.*, presented a communication with this title, of which the following were the conclusions: 1. Chorea is not only, as is generally believed, related to rheumatism, but is itself a variety and a manifestation of this disease. 2. Chorea is a form of cerebral rheumatism, representing one of the many extra-articular varieties of this disease. 3. Lesions may be found in the heart and in the brain, and, as far as we can say to-day, the cortical region is the part involved. 4. It is impossible to distinguish, during life or after death, any difference between the endocartitis due to rheumatism and that which is supposed to be due to chorea. 5. Shock, mental overwork, or physical emotion are the causes ordinarily producing chorea, but these can give rise to the disease only in children who have inherited the rheumatic habit. 6. The symptoms of chorea point to the action of certain systemic poisons, and, as these have been shown to be the efficient cause of rheumatism in about eighty per cent. of all cases, so we ought to conclude that it is the efficient cause of all cases of chorea, or that at most in a small percentage the disease results from the action of some other toxic substance having a remarkable affinity to the rheumatic poison. 7. As the manifestations of rheumatism are now clinically recognized in parts of the body other than the joints, so chorea may be considered as a variety of rheumatism specially affecting the brain.

ELECTRICITY IN AMENORRHŒA.—Panecki, *Ther. Monatsh.; Br. Med. Jour.*, has found electricity, and particularly the faradic current, the most successful means of dealing with amenorrhœa. It is necessary that the poles should be introduced into the uterus and be allowed to act there. This treatment is well borne, and the current can be increased at each sitting, the number of the latter required averaging from five to thirty, and their duration five to fifteen minutes during successive days. The author's experience includes 18 cases in which the cure of the condition was established a year or more ago, the patients still remaining well. One of these, a married woman aged 31, had never menstruated, though she was subject to periodical affections (severe headache, etc.) The treatment on various

lines had extended over six years, but with absolutely no success. The author at the expiration of one of these periods commenced the application of the faradic current, and after twenty-eight successive sittings a small flow became apparent. During the following interval six more applications were made, and the patient is now well and relieved of all symptoms.

THREE PRESCRIPTIONS:—We take the following from *Hosp. Gaz.*

*Cough Mixture in Phthisis:—*

℞—Liq. atropiæ sulph. . . . . ♏ xij.
Syr. codeinæ . . . . . ℥ iss.
Infus. rosæ acidi . . . . ad ℥ vj.—M.

One tablespoonful when necessary.—*Pharmacopœia of the Royal Infirmary, Edinburgh.*

*For Vaginismus:—*

℞—Thymolis . . . . . gr. iij.
Ext. belladonnæ . . . . gr. xij.
Pot. bromidi . . . . . ʒ ss.
Ol. theobromæ . . . . ʒ iv.—M.

To make four suppositories. One when necessary.—DE SINCTY.

*For the Green Diarrhœa of Infants:—*

℞—Acidi lactici diluti . . . ♏ iv.
Tinct. limonis . . . . . ♏ j.
Syr. simplicis.
Aquæ . . . . . āā ℥ij.—M.

A teaspoonful thrice daily after suckling.—*The Practitioner.*

SINGLE LIGATURE OF THE CORD.—Nguyen Khac Can bases his opinion of the superiority of a single ligature upon his observation that out of 68 cases of labor, *Boston Med. and Surg. Jour.*, with double ligature of the cord, there were 4 cases of retention of the placenta; and out of 146 cases with single ligature, only 2 cases of retention. The duration of the third stage with the double ligature averaged sixty-four minutes, while with the single it was but twenty-seven minutes. The author believes that a rapid diminution in the size of the placenta, due to the free escape of the intra-placental blood, favors retro-placental hæmorrhage, and consequent complete separation of the placenta, and that it further lessens the obstacle to its escape from the uterus and vagina by the resulting decrease in size. He recommends that double ligature of the cord should be reserved for cases of twin pregnancy. While we think that there is a question as to the correctness of the author's reasoning on the first point, there can be no doubt as to the advantage of diminishing the size of any body which is to pass the os uteri, and we think that we have ourselves noticed a greater ease of delivery of the placenta in cases in which but one ligature had been applied. The suggestion of Nguyen Khac Can is certainly of value. It should be easy to prevent untidiness by catching all intra-placental blood in a suitable basin, but the determination not to check intra-placental hæmorrhage, of course, implies a careful palpation of the uterus before the cord is cut, and an absolutely positive elimination of the possibility of a twin pregnancy.

PERSONAL.—Dr. Gerald O'Reilly (Trinity '79), M. D. C. M., who has been in active practice in Fergus since 1879, has sold out to his partner, Dr. Armstrong, and is leaving Canada for a trip to the hospitals of England, before settling down again to work. Dr. O'Reilly has enjoyed a large practice both in Fergus and in the County of Wellington, as he has been very popular in all circles. He was President of Fergus Turf Club, and President of St. Patrick's Society. He lately refused the nomination for Centre Wellington for the Local House. Dr. O'Reilly was in charge of the Guelph Hospital for some time as resident, and put in a year as one of the House staff of Toronto General Hospital. Wherever he settles, we wish him every success.

FOR ACUTE RHEUMATISM.—Dr. Loomis recommends the following:—

℞—Sodii salicyl . . . . . ʒ vi.
Glycerinæ . . . . . ʒ i.
Aquæ cinnamomi . . . . . ℥ vi.

M. S.—A teaspoonful every two hours until tinnitus aurium is produced, then every four to six house until acute symptoms have abated, then give—

℞—Sodii bicarbonatis . . . . ʒ iv.—vj.
In pulv. No. xij. divide.

Sig.—A powder in half a glass of water until the urine is alkaline to test paper. If patient is anemic, begin on soda at once, omitting the salicylate, and give cod liver oil and iron from the start.

CANADIAN MEDICAL ASSOCIATION.—Physicians who are arranging for their summer vacation will be pleased to see that the Canadian Medical Association have arranged to hold their meeting at St. John, N.B., on August 22nd and 23rd next. As a place in which to spend a holiday, the Maritime Provinces can hardly be excelled, and St. John, in August, is said to be almost a paradise.

The gathering promises to be a great success, and those who attend will no doubt feel well repaid for their trip. The expense will be comparatively trifling. No doubt the Secretary will be glad to hear of any who contemplate attending the meeting.

GUAIACOL IN DIABETES.—Dr. Clemens, Frankfort-on-Maine, *La Semaine Médicale*, *Med. Press*, has obtained excellent results in the treatment of cases of diabetes by means of guaiacol. Doses of from 6 to 10 minims of the drug are administered three times a day in a tablespoonful of milk. Under this treatment, in the majority of cases, a progressive diminution in the glycosuria and polyuria takes place, sometimes even, the sugar entirely disappears, and the general condition of the patients becomes greatly improved.

CANCER OF THE UTERUS.—The following is recommended as a deodorizer, *Rev. Méd.*:

℞—Acidi salicylici, . . . . . gr. vj.
Sodæ salicylat., . . . . . ʒ iij.
Tr. eucalypti, . . . . fl. ʒ vj.
Aq. destil. q.s. ad. . . . . ʒ vj.

M. Sig.—Three tablespoofuls to a pint of water. To be used as an injection every three or four hours.

LEGAL REQUIREMENTS IN SOME OF THE STATES TO PRACTICE MEDICINE.—No legal requirements are necessary for the practice of medicine in Maine, Massachusetts, New Hampshire or Rhode Island. In Arizona, Georgia, Idaho, Indiana, Kansas, Michigan, Nevada, Ohio, South Carolina, Wisconsin and Wyoming, any kind of a diploma from a "chartered medical institution" is a sufficient guarantee of the holder's fitness to practice.

NERVOUS OTITIS.—Seek for dental caries, ulceration of mouth and larynx. Iodide of potassium, quinine, salicylate of soda, antipyrin, phenacetin, have given some good results. The negative electric pole should be tried.

## Books and Pamphlets.

THE MEDICAL ANNUAL, 1894. Pp., 680, $2. Bristol: John Wright & Co. Toronto: Carveth & Co.

This popular work is again to hand. It is considerably enlarged. The arrangement of the subjects is practically the same as in previous years. New remedies are first taken up, and the most important of those which have come into notice during the past year are dealt with, as well as the new application of old remedies.

The contributors are well-known and eminent men of all schools and countries. Among other headings, we notice, Sanitation, New Inventions and Improvements in Pharmacy, Books of the Year, and Therapeutic Gains of 1893.

It is a useful book for the general practitioner.

SYPHILIS IN THE INNOCENT (Syphilis Insontium): Clinically and historically considered with a plan for the legal control of the disease. By L. Duncan Bulkley, A.M., M.D., Physician to the New York Skin and Cancer Hospital; Consulting Physician to the New York Hospital; lately Professor of Dermatology New York Post-Graduate Medical School and Hospital, etc. New York: Bailey & Fairchild. Toronto: Carveth & Co. 1894.

This is the essay to which the College of Physicians awarded the Alvarenza prize for the best memoir on any medical subject. It is the result of ten years' work by one of the ablest men in America. The writer argues that syphilis is not essentially a venereal disease, and that it is too frequently so regarded. He devotes this essay to the disease considered from its non-venereal side. Much of historical interest in connection with syphilis is given, *e.g.*, a table giving the epidemics of syphilis since 1577. It is a work of great merit.

HYDATID DISEASE, VOL. II. By the late John. Davies Thomas, M.D., Lond., F.R.C.S., Eng, A collection of papers on Hydatid Disease, edited and arranged by Alfred Austin London, M. D., London, Lecturer on Forensic Medicine, and on Clinical Medicine in the University of Adelaide; Physician to the Adelaide Hospital; Honorary Medical Officer, Adelaide Children's Hospital. Sydney. L. Bruch: 1894.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third series. Vol. fifteen contains the papers read before the College from January, 1893 to December, 1893, inclusive.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

### APPENDICITIS.*

BY D. BRYANT, M.D., NEW YORK.

Whatever poor excuse I might offer as an apology for the infliction to be caused by the presentation of this paper, becomes a good reason when sustained by the fact that I have been requested to do so by our mutual and valued friend, Dr. Vandervoor. Dr. Vandervoor even suggested the title, and no doubt based his desire therefor on the fact that through my interest in the subject under consideration, something had been learned of importance as to the value of the comparative relationship of the vermiform appendix to its contiguous tissues, regarding appendicitis. Dr. Vandervoor believes that much light can be shed on the subject of appendicitis by the study of the modifications in its clinical history as influenced by the physical characteristics of the organ. The further fact that I concur with him in this regard is an additional reason for my presence here at this time.

At all events, the anatomical peculiarities of the appendix that effect directly the symptomatology of this defect—appendicitis, relate especially to the location, direction and extent of the appendix. The local symptoms are the ones chiefly modified by the preceding characteristics of the organ. The emphatic symptoms belonging to this category may be briefly stated as pain, tenderness, tension and tumor.

The situation and character of the pain, together with its reflex manifestations, comprise its important elements as modified by the individuality of the diseased appendix causing it. If the pain be dull and throbbing, and be influenced but little, if any, by respiratory movements, the involvement of connective, rather than serous, tissue, is indicated. Later in the case, however, the superventionof serous painful phenomenon may be slowly or quickly announced. Appendicitis with primary fibrous tissue involvement is necessarily rare, as then the appendix is extra-peritoneal, or, is completely environed by inflammatory adhesions, the result of repeated attacks. In but three instances of 144 autopsies made for other than appendicular trouble, was the appendix found outside of the peritoneal cavity. In one of these it was upward behind the cæcum and colon; in another, behind and near to the inner border of the colon, extending even to the liver; and in the third it was behind the colon near to the outer border. It is in accordance with the well-known law, that the character of pain is modified by the kind of tissue involved, to assume that had either of these appendices been diseased, that the primary pain would have been of the connective tissue type, and continued so until peritoneal involvement had ensued, either by extension of the inflammatory process or of abscess rupture. It was my good fortune but a few years ago to meet with a well-pronounced case of this kind in Bellevue Hospital. In this instance, a dull, throbbing pain had been present for some time, beneath the ascending colon, along with tenderness and induration there. Suddenly the acute agonizing pain indicative of peritoneal involvement occurred, quickly followed by peritonitis and rapid death. At the time of the consultation, I ventured to predict, (1) the presence of a diseased appendix behind the cæcum and colon; (2) extensive connective tissue inflammation and abscess; (3) rupture of abscess into the peritoneal cavity. The results of the autopsy justified each prediction. In many cases of recurrent appendicitis the familiar pain of acute attacks is not present at the outset, and may not appear at all; and, too, respiratory movements cause but little, if any, additional infliction. I saw such a case as this but a few days ago while recovering from a fourth attack, with intervals of one year each.

It is, of course, superfluous to say that primary intra-peritoneal appendicitis causes acute pain, for this is the typical manifestation of the disease. It is proper to add, however, that the mobility and length of the appendix have much to do with the severity and extent of the pain, and also with the rapidity of the diffusion of the poisonous pro-

*Read before the N.Y. State Med. Asso., Feb., 1894.

ducts of the disease. All are aware that the appendices of some are comparatively "free" in the peritoneal cavity, their movements between the fields of the contiguous intestines being limited only by their mesenteries or their attachment to the cæcum. The free extremities of such as these are observed often extending upward from between the intestinal loops, and at this time can be aptly compared to the erect position of the deadly cobra when prepared to strike!

Let us now glance for a moment at the records attesting the freedom of movement of intra-peritoneal appendices. In 66 examinations, 40 per cent. of them were "free," in that one-half of the entire length was surrounded by peritoneum. The remaining 40 had mesenteries varying from three-fourths to above an inch in length.

Surely, gentlemen, the length and the freedom of movement of a diseased intra-peritoneal appendix exercises an important influence on the intensity and area of the pain and the rapidity of the diffusion of the disease producing elements. Dr. Reginald Fitz, in his oft-quoted and classical article published in the *American Journal of Medical Science*, October, 1886, says, "Sudden severe abdominal pain is the most constant, first, decided symptom of perforating inflammation of the appendix." As a proof of the fact he shows that this manifestation happened in 216 of 257 cases, or 84 per cent. of the number.

If we now turn our attention to the per cent. of "free" appendices, and those with mesenteries above an inch in length, we find their sum to be 84 per cent. of the entire number also. Certainly this similarity of percentages is a strange coincidence at the least, and leads one to repeat the remark, "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." While it is doubtless true that the situation of pain is regulated to some extent by the location and direction of a diseased appendix, still neither time nor utility will permit me to indulge in hair-splitting distinctions in this regard, based on whether the appendix extends outward, downward, inward, etc., as this feature alone possesses no practical importance, except when the appendix extends beyond the usual limit.

It may not be amiss to add in this connection that the appendix runs inward in about 25 per cent.; that it is curled behind the cæcum in about 20 per cent., and extends into the pelvis in 14 per cent. of all cases. The average length (*post mortem*) of the appendix in the male is $3\frac{1}{2}$, and in the female $3\frac{1}{10}$ inches, as deduced from 144 examinations. The importance of the frequency (14 per cent.) of intra-pelvic extension should not be considered lightly. Nor can the differences in the lengths of the organ, as between the sexes, be deemed insignificant, when it is noted that the half inch difference between them causes the appendix of the male to enter the pelvis twice as often as it does in the female sex. The clinical importance of intra-pelvic extension of the appendix cannot be gainsaid. In a diseased appendix there located, the pain may be nearer the hypogastrium, and, too, it may involve the pelvic peritoneum and modify the action of the pelvic viscera during functional activity. And especially are these facts true if the extremity of the appendix be the portion involved by gangrene or perforation.

Thus far only direct pain has been considered, of both the acute and dull types. Reflex pains, while less important than the direct, are, nevertheless, of great diagnostic significance. Frequently during the course of an attack, and especially at the outset, referred pain may be present in almost any part of the abodmen. And, too, it is observed not infrequently in the testicle, perineum, rectum, thigh, lumbar region, etc. In fact, referred or reflex pains may occur at the seat of the distribution of any spinal nerve directly involved by the disease. Fitz has shown that in 213 cases of appendicitis pain was present in the right iliac fossa in 48 per cent.; in the abdomen in 36; in the hypogastrium in 5; in the umbilical region in 4; in the epigastrium in 2; and one per cent. each in the stomach, hepatic region, left iliac fossa and right hip and groin. I, myself, treated a case in June 23, 1886, in which the pain was referred to the umbilical region only. That this was a genuine case cannot be gainsaid, since the appendix was found to be perforated and was removed. The anatomical reason for the occurrence of these reflex pains can be explained by the well-known influence exercised by the abdominal sympathetic ganglion on the contents of the belly. A misplaced appendix or a wandering cæcum will account for an unusual pain site in a few instances. Without amplifica-

tion, it is sufficient to say now that pain in the right testicle, with or without its retraction, indicates the direct involvement of the genito-crural nerve. The same may be said also of the ilio-inguinal, anterior crural, etc., when pain is referred to their respective distributions, in connection with recognized or suspected appendicitis.

*Tenderness.*—This, the second of the inherent manifestations of appendicitis, may be either local or general, superficial or deep, keen or dull, depending on the extent, location and character of the inflammation and the variety of the tissue involved by it. If the extra-peritoneal connective tissue be first involved, as when the appendix is located behind the colon, or behind a cæcum not surrounded by peritoneum, or outside the peritoneum elsewhere, and, perhaps, between the layers of the broad mesentery of the appendix, the tenderness is local, deep-seated, and dull at the outset. That such cases as these are rare is obvious, on account of the great infrequency of appendices there placed. Quickly, however, the dull tenderness is supplemented and obscured by the acute variety, due to the rapid extension of inflammation to the contiguous peritoneum. The rapidity of the supervention of the acute pain is in direct proportion to the gravity of the lesion and the amount of the connective tissue involved by it. Dull tenderness of much duration is indicative, therefore, of a post-colon position of the appendix, and especially is this true in the absence of a meso-colon, which, according to Treves, happened in 52 per cent. of the subjects examined by him. Acute tenderness is, of course, strong proof of the involvement of the peritoneum, and its location may be accepted as indicating the site of the initial lesion, when it is circumscribed and marks the outset of the attack. If this fact be true, then, indeed, no definite point of tenderness can be established that may be regarded as diagnostic of this disease. The varying directions of the appendix already cited; the differences in its length, and in the situation in it of the point of greatest disease; together with the fickleness of the location of the cæcum from which it arises, all conspire to make the establishment of such a point impossible, and a reliance on it impracticable and misleading. Of general tenderness I will say but little, since it cannot be regarded as indicative of a circumscribed process, and is, therefore, not to be considered as of much practical bearing on the arrangement of the appendix. It is proper, I think, to say that in those cases of appendicitis observed by me in which the diseased appendix was "free," the area of tenderness was far greater than in those not so freely movable.

*Tension.*—This expression refers mainly to tension of the abdominal walls; a tension tint may be limited to the side of the attack or be more or less general, according to the extent of the inflammation associated with it. The presence of this tension phenomena is of beneficent significance, and should incite the profoundest respect of the most sceptical minds. The motor nerve fibres that animate the abdominal muscles are from the lower intercostal, and are intimately connected with the sympathetic, supplying the abdominal viscera, through the lower thoracic ganglia from which the splanchnic nerves are derived. As a result of this arrangement, in acute peritonitis, the muscles of the abdomen become quickly and finally contracted, and thus shield the underlying viscera from external force, and keep them as quiet as it is possible to do by physical means alone. Tension of the right rectus abdominus in appendicitis is an early and important symptom, and indicates the presence of limited peritonitis, and fulfils the conservative purposes already stated. And for these reasons the left rectus goes on guard too, when its subjacent viscera are similarly involved. Muscular tension in this disease is not limited entirely to the abdominal walls, since the psoas and iliacus muscles also, from nervous involvement or direct implication, contract, causing flexion of the thigh. The bladder and rectum become fretful often, especially if the diseased appendix extends into the pelvis or be attached to the peritoneum at its brim. The cremaster muscle exercises its prerogative on the testicle, if the genito-crural nerve be implicated.

*Tumor.*—This symptom is of dual importance on account of its diagnostic and therapeutic significance. The former attribute alone concerns the tenor of this paper. That the situation and extent of the diseased appendix has much to do with the location and the determination of the presence of tumor cannot be denied. Generally speaking, the location of the tumor indicates the situation of the lesion, and it is especially significant, if the tumor be small, firm, deep seated and

fixed in its position. If, on the other hand, it be large, not firm, superficial and movable, its bearing on the site of the initial disease is of a general character only. When present, according to Fitz, tumor is detected by palpitation from the first to the eighth day of the attack inclusive. In 24 cases, it appeared in one on the first day; three on the second; four on the third; two on the fourth; four on the fifth; five on the sixth; four on the seventh; and in one on the eighth day.

The third, fifth and sixth days are noticed to be the most prolific ones. Tumor may be present early and yet be not detected till later in the disease, owing to its obscure position. As, when associated with a diseased appendix that is located behind the cæcum (22 per cent.); when placed behind the colon (2 per cent.); when extended into the pelvis of the intra-pelvic portion to the diseased part (14 per cent.); with a tympanitic cæcum, and with general tympanitis irrespective of its location. In the intra-pelvic cases tumor may be detected often there and not elsewhere, by rectal or vaginal examination. Still, in these cases tumor may escape the vigilance of the closest scrutiny. Owing to time limit I have dwelt only on the leading cardinal symptoms, leaving consideration of the rarer and more curious manifestations for another time. In closing, permit me to submit the following conclusions for your consideration:

(1) That the location, direction and extent of the appendix have an important bearing on the clinical history of appendicitis.

(2) That the well recognized variations of the appendix in length, direction and location, and the varying site of the cæcum and of the seat of the disease of the appendix, make the establishment of a definitely seated diagnostic point of tenderness unwise and misleading.

## NOTES ON A CASE OF BILIARY CALCULI.

BY SURGEON-MAJOR G. T. ORTON, WINNIPEG, MAN.

Feb. 10th, 1894.—Was called in consultation with Dr. S—— to see Mr. H——, residing some 80 miles from the city, whom I found much emaciated and extremely jaundiced. Pulse normal, 70; temperature, 97½; tongue only slightly brown, coated at back part; bowels occasionally loose, at other times costive, motions clay-colored and devoid of bile, complained of dull almost constant pain, referred to pit of stomach, with occasional paroxysms more severe, causing him to double himself up to get relief and at times a sharp pain shooting up the spinal cord from the usual seat of uneasiness, which made him feel very sick and faint, latterly had required one or two pills of ¼ grain morphia to procure ease and rest. Appetite somewhat impaired, but considering his appearance fairly good, and digestion not bad; urine loaded with bile.

*History of Case.*—Had suffered dull pain and uneasiness, always referred to the stomach, for over 12 months. Had been treated for dyspepsia and gastrodynia until about a fortnight before I was called in, when he was somewhat suddenly seized with great pain and uneasiness over kidneys, and burning soreness in voiding urine, which became very high-colored. He then consulted his medical adviser, who placed him under appropriate treatment for suppression of bile and consequent renal and cystic irritation. Not proving amenable to treatment, Dr. S. desired a consultation, fearing grave results, and uncertain as to true diagnosis of the case. From his knowledge of the case, and its history, he very reasonably suspected malignant disease either of pyloric end of the stomach extending to the duodenum, and involving orifice of the ductus communis cholidicus, or of the liver itself, extending to gall bladder, with cystic and hepatic duct also affected.

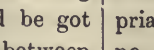
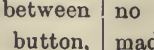
Upon palpation we both felt two nodules, one larger than the other, at lower margin of liver, and also detected considerable enlargement of that organ. I was inclined to agree with Dr. S., that the indications were highly in favor of his view, that it was scirrhus or other malignant disease of the liver, and the more so from the sharp lacinating pains shooting to spinal column. However, I thought it just possible that it might be chronic hepatitis, with some cirrhosis in neighborhood of gall bladder and the hepatic and cystic duct, which had become involved and occluded from catarrhal inflammation, or possibly, notwithstanding the absence of the usual attacks of severe colic, it might be impacted gall stones. We decided to try and reduce any hepatitis and procure absorption of any effused lymp by appropriate external and internal means. Being far from

satisfied as to our correct diagnosis, and feeling much interest in the case, I desired to be kept informed of its progress by the doctor, and with his consent, also asked his wife to write me occasionally how he was doing.

From time to time the report was, no improvement, and no secretion of bile in the stools, was gradually getting weaker. From the reports as well as partly in consequence of a description given me by my nephew, Dr. R. H. Orten, of autopsies made upon two similarly obscure cases which had resulted in death, and proved in both cases to have been impacted gall stones, I became strongly convinced that poor Mr. H. also suffered from impacted biliary calculi, and wrote Dr. S. my opinion, and that whether or no, I thought an exploratory incision should be made, which, in case of it proving malignant, could do no harm under proper antiseptic conditions, and if calculi were found after removing those found in gall bladder, or what could be got at in ducts, an anastomosis could be made between gall bladder and duodeum with Murphy's button, and a new channel formed for the secretion of bile, if the common duct was occluded. This was finally consented to both by Dr. S., the patient and the family, and after what proved to have been too long delay, poor Mr. H. was sent up to Winnipeg to be operated upon by me, if upon again seeing and examining him, I deemed it advisable.

Upon his arrival I was greatly shocked at the sad change in his appearance; his emaciated condition, pained expression of countenance, increased jaundice which had become of a deep olive green hue, gave him altogether a very ghastly appearance. Upon careful examination I became confirmed in my opinion that it was impacted biliary calculi.

I invited Drs. Howden, Macdonnell and R. H. Orton to examine him with me, and we all agreed, as did subsequently Dr. Grain, who afterwards saw him alone. I at once removed him to a private ward in the new and elegantly equipped St. Boniface Hospital, and notwithstanding that at his advanced age, being in his seventy-first year, and in his feeble and complicated condition, for he had suffered for years with chronic bronchitis and catarrh, and that operative interference was comparatively hopeless, I decided to give him that only chance of life, and was the more encouraged so to do by the longevity of his family history, his really excellent pulse under all the circumstances, his apparently perfectly sound heart and his almost normal temperature. Latterly he had almost lived upon porridge and milk, and his tongue was wonderfully clean.

Operation April 4th, 1894, aided at different points by above-named medical gentlemen and in presence of other well-known Winnipeg medical men. Chloroform administered after hypodermic of $\frac{1}{70}$ gr. strych. nit. and two tablespoonsful of brandy by the mouth. An incision made three and one-half inches from point of ninth rib down an inch to right of, and parallel with, the border of rectus muscle into the abdominal cavity, which at once brought into view the lower border of liver and gall-bladder, both much congested; a large calculus was readily distinguished in gall-bladder. The duodenum was then brought up from behind the lesser omentum and the appro priate suture  introduced, but no incision,  fortunately, made for insertion of male portion of button, as upon introducing a similar suture in gall-bladder pus exuded freely, whereupon, after packing well with gauze to prevent extravasation of pus into general abdominal cavity, I made an incision into gall-bladder, and after evacuation of pus, extracted, by means of a bullet forceps, a calculus the size of a very large nutmeg after first breaking off a portion, and also a number of smaller calculi. This large calculus appeared to be firmly impacted into the mouth of the cystic duct, and beyond it the duct seemed to be almost impervious for a distance, the gall-bladder was greatly thickened and its walls utterly unfitted for the application of the button, so I decided to stitch the opening to the peritoneum and skin, to thus endeavor to secure an external fistula for the bile to escape, and as the calculi I could easily feel in the cystic duct, and, as I thought, also in common duct, could not be safely extracted, I thought we might eventually dissolve and extract through this external fistula. The peritoneum was brought together, as well as the skin, by common interrupted sutures, and the gall-bladder filled with gauze to act as a drainage.

The patient recovered well from the chloroform, and, though terribly troubled with cough, and the expectoration of what appeared to be purulent

phlegm, took nourishment fairly well. Neither temperature or pulse evinced any marked rise. On the fourth day after the operation, as little bile was exuded, I endeavored to make an impression on the calculi in the cystic duct, which could be easily felt, with a probe, and commenced flushing with strong pressure, warm, sterilized chloroform water, and morning of the seventh day I used Durand's solution, three of ether and two of turpentine, to try and dissolve the calculi, also adding some soda carb. to the warm water flushing. While I was thus engaged, the patient was seized with a sudden violent fit of coughing, and raised himself up in bed, when suddenly he exclaimed, "Something has given way," and, to my horror, upon examination I found the lowest stitch in the wound had loosened, and a small piece of omentum protruded, which I immediately returned and kept in place with warm sterilized gauze and towels until I could get assistance. Assisted by Drs. McDiarmid and Todd, with chloroform carefully administered by Dr. Hutton subsequent to another hypodermic of strych. nit., I again opened up the whole wound with the idea of making another attempt to extract the calculi impacted in cystic duct, at least, but I was only able to gouge out portions, and pass eventually a probe, as I thought, into the ductus communicus cholochicus. As the patient was very feeble, I desisted, thinking the same efforts could be nearly as well made from without. I united more closely from below up the peritoneum with a continuous suture, and closed up the outisde wound as before.

Though the patient recovered from the chloroform, the difficulty in breathing and bronchial complication became much worse. Little or no nourishment could be taken or retained, and, though much more bile exuded externally, he gradually sank and passed easily away thirty hours after the second operation, or eight days and six hours after the completion of the first operation.

*Autopsy* in presence of Drs. Howden, Higginson, Macdonnel and Todd. No traces of peritonitis extending beyond the actual seat of operation. The liver, though turgid and apparently congested, was otherwise fairly normal in appearance, except in the neighborhood of the gall-bladder and cystic duct. The gall-bladder was adherent to the liver, and its walls thickened to an inch with fibrous exudation, and this exudation of fibrous tissue seemed to extend therefrom, forming a hard nodule to right of gall-bladder at lower margin of liver, which, when cut into, had much the appearance of scirrhus, but subsequent microscopic examination proved it to be only fibrous tissue. The pocket in which the large gall-stone was imbedded was enormously thickened, especially to its liver side, as was also the walls of the cystic duct, in which was found three other calculi, from the size of a large bean to a pea, each in its bed or pocket, and one imbedded in the opening of cystic duct at its junction with hepatic, which effectually closed the latter so that little or no bile could escape either into common duct or gall-bladder.

Another smaller calculus was found in the common duct about the size of an apple pippin, about midway to the duodenum. The walls of both hepatic duct and common duct were found quite healthy. Could anything further possibly have been done with a greater chance of saving life? Well, I think if he had been a younger man, and free from other complications, that possibly by removing the calculi from the cystic duct, and, indeed, even the duct itself, with the gall-bladder up to near its union with the hepatic duct, and then, including portions of peritoneum, suturing the orifice so as to leave the hepatic duct alone continuous with the common duct, after having ascertained that the latter was pervious into duodenum, the whole wound might have been closed with a fair prospect of success, but under the conditions actually existant, and the difficulty in forming an exact diagnosis even after the parts were exposed, I feel that even with the more accurate knowledge gained by the *post mortem*, one might find it very difficult to pursue any other course than the one adopted.

In conclusion, had the gall-bladder been in a healthy condition and full of bile, I was struck with the ease and simplicity with which the anastomosis could have been effected between the gall-bladder and duodenum by the aid of Murphy's button, and I cannot help expressing my admiration of this ingenious device. Some years ago a brother of mine, Dr. H. Orton, of Ancaster, Ont., died, seven weeks after an accident by which his leg was badly fractured and internal injury received. At the autopsy made by Dr. Henwood, of Hamilton, and other medical men, it was found that the only internal injury was telescoping of

the bowels at two different points, at which localized inflammatory action had alone taken place, and it was impossible to pass through either anything but the finest wire probe; death resulting literally from gradual starvation, as he was not able to retain more than a teaspoonful of only liquid nourishment. His leg united perfectly, and there is little doubt that with our present familiarity with abdominal surgery, and Murphy's button, a successful effort might have been made to save his life.

## SOME OF THE USES AND ABUSES OF THE NITRITES.*

BY JAMES NEWELL, PH.B, M.D., WATFORD, ONT.

Member of the American Medical Association. Late Professor of Therapeutics in the Michigan College of Medicine and Surgery. Late Physician to the Detroit Emergency Hospital, etc.

The nitrites are a group of remedies which includes the nitrites of sodium, potassium and nitroglycerine, or glonin, as it is now named in the New Pharmacopœia.

They are a somewhat important class of remedies, being prompt in action, but of short duration, and demanding their frequent administration to maintain continued effects.

In order to have an intelligent understanding of their therapeutic uses, it is necessary to know something of their physiological action; and while clinical experience may be the touchstone which solves the mystery of remedial agents, a good knowlege of pharmaco-dynamics will often restrain or prevent the employment of remedies whose administration would prove prejudicial to recovery. When taken they cause a sense of cerebral fulness, flushed face, pain in the head, rapid heart beat and lowered blood-pressure. The rapidity of heart beat is caused by their depressant action on the inhibitory branches of the vagus, and to the sudden relaxation of the terminal arterioles in front from vaso-motor paralysis. The flushed face is caused by the dilitation of the capillaries, and the lowered blood-pressure to the lessened resistance in front. It may be accepted as a fact, to which there are but few exceptions, that when there is very little resistance in front, that is lowered blood-pressure, the heart endeavors to make up or compensate the loss by increasing the number of its contractions, and when we employ an agent like the nitrites which also paralyses the inhibitory centre, the number of heart beats is greatly increased.

On the nervous system their action is not so marked, but they take rank as sedatives or depressants, confined to the motor tract of the cord. In the blood they transform hemaglobin to methemaglobin, and thus lessen or destroy the oxygen-carrying function of the corpuscles. The blood becomes venous and of a chocolate color, with consequent lowering of body temperature, due to decrease of oxidation and increased radiation of heat from the dilated capillaries.

I have entered somewhat fully into the physiological action of this group of remedies, believing that it is impossible to intelligibly administer drugs without having a knowledge of their pharmaco-dynamics, and as "practice without theory is blind," it is just as important to know when not to employ a certain remedy as it is to know when to use it. Sometimes it demands a better knowledge and acquaintance with the principles of therapeutics.

The diseases in which the nitrites have been found beneficial are those of a spasmodic nature, whether local or general, such as whooping-cough, spasmodic croup, hystero-epilepsy and convulsions of children. Hystero-epilepsy and simple hysteria I have found to yield to a single dose of glonoin. In interstitial nephritis the nitrites, especially the glonoin in combination with digitalis, are useful. In this disease we have heightened blood-pressure, owing to spasm or constriction of the terminal arterioles, and an hypertrophied left ventricle, a condition of affairs which, if not cured, is relieved by the nitrites. Death from croupous pneumonia always comes from cardiac failure. When there is impending failure of the right heart from overdistension, the nitrites, by dilating the arterioles, thereby diminishing the work which the heart has to do and causing an equilibrium in the distribution of the blood, have been found of benefit, particularly if employed on the first appearance of the engorgement.

Migraine, when there is a spastic or constricted condition of the cerebral vessels, is sometimes relieved by their administration. Other conditions

*Read before the Detroit Medical and Library Association, September 11th, 1893.

of acute cerebral anæmia are also rapidly relieved by them—such as syncope and anæmic epilepsy.

Many other similar conditions which will suggest themselves are greatly benefited by the use of the nitrites. Cardiac dyspnœa, attended by high arterial tension, will be greatly relieved by their employment. The pain due to aneurismal pressure is sometimes alleviated by them. Generally, if they will do good in a certain case their action is prompt.

Having thus briefly glanced at a few of the indications for the use of this class of remedies, I will now turn to their abuse and contra-indications, also certain pathological conditions in which they are sometimes employed, and in which their administration is detrimental to recovery. This has been the chief motive which caused me to write this paper.

Some time ago, speaking to a somewhat eminent surgeon of this city, he informed me that he considered nitro-glycerine the best remedy he was acquainted with to combat the condition known as surgical shock. Let us look into this and ascertain what is the condition of affairs which obtains in shock:

We find the surface pale and cold, the heart beating extremely feeble, and often greatly increased in frequency, complete muscular relaxation and depression of all the vital functions. The pale, cold surface is caused by the paralysis of the vaso-motor system, and by the recession of the blood to the muscles and abdominal viscera. Now, why, in such a condition, should such paralyzing and depressing agents as the nitrites be given, except we believe in the law of similars? Is it prudent or good therapeutics in such a case to give a remedy whose chief action is to still further depress that weak heart, to still more paralyze the vaso-motor system with which the integrity of the circulation and blood-pressure is in such intimate connection and relation? I firmly believe the procedure wrong, and regret to say that the practice obtains with some, and men, too, who are not tyros in medicine, but who neglect to bear in mind the physiological action of remedies

During the past year, two eminent men have died in this country, and the public press informed us that when they were in extremis, "nitro-glycerine, a powerful heart stimulant," was given to brace up the flagging heart and prolong their lives. Let us investigate this statement and see if we can elicit the distinguishing characteristics of heart stimulants. We find they cause, (*a*) increase in the number of heart beats, (*b*) rise in the blood-pressure, (*c*) increase the blood in the cerebral arteries. Do we find such to be the specific action of the nitrites on the circulatory system? No, except that the heart beats are greatly increased in frequency, caused by paralysis of the inhibitory nerve, and the dilatation of the peripheral vessels from relaxation of their muscular coats through vaso-motor paralysis. Consequently there is a loss of resistance in front which immediately results in a great fall in blood-pressure, and the resultant action serves only to intensify the already existing state of cardiac insufficiency and adynamia.

If the physiological action of a remedy is to serve as a guide for its intelligent administration in disease, I am totally at a loss to understand why the nitrites are given in cases of genuine intrinsic cardiac failure.

"A perfect circulation" is one which empties the veins and fills the arteries, the very antithesis of the condition produced by the use of the nitrites. I am, therefore, of the opinion that their employment in essential cardiac adynæmia is one fraught with great danger. In threatened heart failure from alcoholism, and when it has actually taken place from chloroform or ether, I believe the administration of the nitrites to be prejudicial to recovery, as their dominant action is to weaken the pulse and lower the arterial tension.

There are many other similar pathological conditions to which I might direct your attention, in which the nitrites are sometimes employed, with no benefit, but injury; and while I do not wish to pose as an iconoclast, or breaker of idols, my object will be attained if I succeed in directing your attention to the proper use of this group of remedies, and thereby prevent the perpetration of mistakes committed in the name of good therapeutics.

---

THE North-Western University of Chicago has received the handsome sum of fifty thousand dollars from Wm. Deering, the harvest machine manufacturer. The objects of the donation were, first, the enriching of the medical school, and, secondly, the perpetuation of the name of Dr. N. S. Davis in connection with a new chair.

# Reports of Societies.

## ONTARIO MEDICAL ASSOCIATION.

### FOURTEENTH ANNUAL MEETING.

The fourteenth annual meeting of the Ontario Medical Association was held in the Educational Department of the Normal School, Toronto, June 6th and 7th, 1894.

Dr. L. McFarlane occupied the chair. This meeting was one of the most successful that has ever been held. There were in attendance some 160 members, 24 new members being added.

After the usual routine business of opening, Dr. A. J. Johnson presented a resolution asking that a committee be formed to take into consideration the question of contract and lodge practice. This was unanimously consented to.

The opening paper was one by Dr. J. H. Duncan, of Chatham, on the "Use of Strychnia in Pneumonia and Chronic Heart Diseases." He pointed out that it acted upon the vital nerve centres, making them more susceptible to external stimulation, that the heart weakness was due largely to the affection of the nerve centres by the pneumonic poison. This drug increased the irritability of the motor centres. No rule could be laid down as to dosage, but he had given in average cases a thirtieth of a grain every three hours, with marked benefit. He referred also to the statement made by certain investigators, that its use increased the number of white corpuscles, and thus the phagocytic action of the blood would be materially increased.

Dr. Saunders, of Kingston, said that there was another positive element in the heart weakness, viz., the increased amount of resistance of the consolidation in the pneumonic lung, and pointed out that the drug was of value in its direct action in stimulating the heart to overcome the obstruction until the crisis arrived.

Dr. Gaviller spoke of the great value he had derived from the use of strychnia in acute and chronic cates. He has found it particularly helpful in the bronchitis of children. He had found it assist very materially in assisting to get rid of the mucous from the bronchial tubes. He cited cases where he had used it in chronic bronchitis of the adult, with great benefit, having pushed it in one case till tetanic spasms ensued. He had employed it with digitalis with good success, but he had not given the digitalis in heroic doses as some advocated.

Dr. Temple followed with a paper on "Placenta Praevia." He gave an account of the history of the treatment this condition had received in the past, and outlined the presont lines of treatment. No hard rule could be laid down, but each case must be treated according to the symptoms presented. The great weight of evidence was in favor of the termination of gestation, especially if it were the first attack, and severe, and prior to the seventh month. He considered that where hæmorrhage occurred in the early months, there should be no hesitation, if the mother's life were in danger, in sacrificing the life of the fœtus. It would only be justifiable to prolong gestation where the woman was near the seventh month, the hæmorrhage slight, the placenta latterly situated, and the woman in reach of a medical man. The patient should be put to bed, kept physically and mentally quiet, and an opiate might be administered. He did not consider there was any virtue in astringents. The procedure, if hæmorrhage occurred severely after the seventh month, he repeated, was to deliver. The membrane should be punctured, the cervix dilated, if possible, the placenta around the os separated, and ergot administered. If the cervix were hard and undilatable and hæmorrhage persistent, he advocated plugging, and that thoroughly and antiseptically, the woman being closely watched.

Dr. Burns alluded to the occurrence of post-partum hæmorrhage in these cases, and the necessity of taking extra precautions. Another point he referred to was the greater frequency of the placenta praevia in multipara than in primipara.

Dr. Mitchell coincided with Dr. Temple in the main, but referred to the difficulty of always being able to diagnose these cases. He thought possibly there was a danger of considering that whenever hæmorrhage occurred during gestation that it was due to placenta praevia, when perhaps this might not be the case. He had used for dilating the os Barnes' dilators. He referred to one or two cases he had had, and considered the great gravity of all such cases.

Dr. Sangster said that his method of dilitation of the os was with the fingers, which he found to be the most satisfactory way of accomplishing it. Dr. Hillier agreed with this.

Dr. Oldright pointed out the dangers of plugging. The uterus was a dilatable structure, and after the plug was inserted there was danger of intra-uterine flowing. He thought in most cases the os could be dilated by the fingers.

Dr. Harrison, of Selkirk, spoke of the difficulty country practitioners had in these cases, by living, as a rule, so far from them. His plan was to dilate the os, and deliver as soon as possible.

Dr. McLaughlin wished to know why ergot should be given, as it produced tetanic spasm of the uterine muscle, not producing expulsive efforts. There was thus danger of causing the

death of the child. He spoke of the old method of plugging with a silk handkerchief advised by the early teachers.

Dr. Powell reported having eight cases of placenta prævia centralis with seven recoveries. He emphasized the point that no two cases could be treated alike. He thought the statistics would be materially improved if the process of inducing labor in all cases were adopted where the diagnosis has been satisfactorily established.

Dr. Bruce Smith said that plugging should be the last resort in placenta prævia; the uterus should be emptied at once. He cited cases in proof of the value of this proceedure. He repeated that the patient should be very carefully watched.

Dr. Temple said he had not found *post-partum* hæmorrhage occur after these cases any more than after ordinary ones. In reply to Dr. Mitchell he said he took it that the diagnosis had already been made; the subject he was to discuss was the treatment of the condition. As to the use of Barnes' bag, he said they were not usually at hand. He contended in favor of plugging, where it was well done, to check hæmorrhage and induce dilitation of the os. Of course, the silk handkerchief would not fill the bill at all. He deprecated the use of ergot in ordinary cases of labor, but in these cases where the child was not viable its use was alright.

WEDNESDAY AFTERNOON.

The first item of interest on the programme was the President's address, which was a very able one, and was listened to with marked attention. He referred to the history of medicine in the past, gave an idea of its present position, and referred to its future possibilities. He outlined the rise and fall of the various schools of medical thought, dwelling more particularly on the present one, the principles of which depended upon a knowledge of physiology, pathology, and the kindred sciences. He spoke of the immense strides that had been made in the development of these special branches, and of the immense aid they were to scientific diagnosis and treatment. He paid a high tribute to the late Dr. Hodder's influence upon his students in stimulating them to the study of scientific medicine. He referred to the wonderful accuracy with which the educated physician of the present day can detect the presence of disease in the most occult parts of the human frame. He also paid a tribute to the workers in the line of preventive medicine, and to those who were studying the effects of the action of the attenuated virus of certain specific bacilli in the treatment of diseases caused by these bacilli. We were not in a position, he said, to speak of the value of animal extracts in the curing of disease. He advocated the establishment of an institute similar to Koch's and Pasteur's for the advancement of the studies, the results of which tended perhaps more than any others to the well being and happiness of the people. This should be under government control, and outside the influence of party politics. He argued that if we had institutions for training farmers, schools for civil engineers, etc., aided by gevernment, why not an institution of this sort, whose objects were the saving of life and the prevention of disease. If the Province would take such in hand, he was sure generous aid would be given in the way of bequests by many who are in sympathy with such a work.

Dr. McFarlane, on motion of Dr. Temple, seconded by Dr. Harrison, President of the Dominion Medical Association, was heartily thanked for his splendid address.

"The Treatment of Strangulated Hernia," was the title of the next paper, read by Dr. J. Wishart, of London. Dr. Wishart's first point was a reference to what Mr. Jonathan Hutchinson had said regarding the fatality of strangulated hernia, how that, while mortality in all other surgical proceedures had materially lessened in recent years, the mortality following operations for strangulated hernia had increased. This he attributed to the fact that the step of performing taxis had been left in the background, surgeons being too desirous of using the knife. Dr. Wishart gave a tabulated statement of some seventeen cases he had had during the past twelve years, in sixteen of which he had operated with twelve recoveries. He detailed the special points of interest in each operation.

Dr. Whiteman, of Shakespeare, discussed this paper and cited some interesting cases he had had, outlining the symptoms diagnosis and treatment. He spoke of the ease with which the operation could be done, and its freedom from danger. It was often difficult to know how much taxis should be used. If operation were done, and the bowel looked suspicious of gangrene, the question as to whether to return it or not was also difficult.

Dr. Rennie, of Hamilton, followed. He spoke of the high mortality in these cases. He believed there was a decrease instead of an increase. All cases have not been reported, and we have no large tabulated statements regarding the question. He believed too that taxis should not be placed in a subordinate position. Chloroform should not be given any oftener than necessary, as it tended to excite vomiting. Where the bowel was gangrenous it was because operation had not been done early. In this condition of affairs the use of Murphy's button would be a favorable form of treatment.

Dr. Grasett said that the importance of this subject was shown from the fact that it had come up for discussion so often during the meeting of the Association. He would not like to dispute such an authority as Mr. Hutchinson, yet he was

of the opinion that the mortality after operation for strangulated hernia had decreased. He had operated with good results on a patient 89 years of age. As to gangrene, no law could be laid down; each case must be judged on its merits. There were fewer cases of gangrene now than formerly, because the strangulation was sooner recognized. He cited a case he had had, where gangrene was present to a small extent, which he stitched up with a Lambert suture, returned the gut, and recovery followed.

Dr. Peters said Mr. Hutchinson was certainly very pronounced in his view regarding the use of taxis, not by gentle manipulation, but by using all the force he possibly could, and after he was tired, of getting an assistant to continue the process. Notwithstanding the statistical reports, he thought the results were exceedingly good, because if these cases were left to themselves, they would certainly in most instances end fatally; while under operation, thirty or forty per cent. of successes was a good record.

Dr. Toskey said that the maxim as laid down by the leader of the discussion were correct enough, but the difficulty was in knowing how to apply them. A great deal of judgment was required. In regard to taxis, he could understand, in a large hernia which would fill the hollow of his two hands, how one's whole strength might be placed upon it to reduce it, but this same rule would not apply to a very small hernia. With regard to the increased hospital mortality statistics in this operation, he suggested that it might be due to the fact that the ordinary outside medical man was now so well trained that he undertook these operations himself with success, and sent only the worst cases to the hospitals.

Dr. Wishart did not agree that this was an easy operation and lightly to be undertaken. There was always danger in opening the abomen. He believed that in case a country practitioner, far removed from help, met such a case, he should give chloroform and try to reduce at once, as delay was very serious. He had never seen in the cases where taxis had been used, even to a considerable extent, any damage done to the bowel when he had opened up. The speakers agreed that where the knife had to be used the radical operation should be done, as a rule.

Drs. G. W. Fox, of New York, and Coonyn, of Buffalo, were invited during the session, to seats on the platform.

The Association then divided into sections.

SURGICAL SECTION.

Dr Bruce Smith was appointed to the chair.

"McGill's Operation for Prostatic Enlargement," was the next paper, by Dr. A. McKinnon, of Guelph. The reader of the paper gave the history of several cases he had had of prostatic hypertrophy accompanied by urethral stricture, cystitis and severe bladder spasms. The operation consisted in a suprapubic cystotomy and removal of a portion of the prostate with very gratifying results. He outlined the technique of the operation fully, and of subsequent drainage. He quoted statistics furnished by Bellfield, of Chicago, of 41 such cases where 32 had made recoveries, the patients having regained the power of voluntary micturition.

Dr. Primrose discussed the question of the use of Peterson's bag, and the dilitation of the bladder, how this would enable the operator upon completion of the abdominal incision, of stitching the bladder wall, and holding it by means of the stitches while it was being opened, instead of cutting down upon a sound, as Dr. McKinnon had advised. He asked also, how hæmorrhage was controlled in view of the vascularity of the prostate. He advocated the advisability of perineal drainage, as in high drainage there was danger of infection of the cellular tissue in front of the bladder.

Dr. Grasett said his experience was limited in this line of work, having done, but one and that a partial prostatectomy. The result in this case was good. He thought a combination of the suprapubic and the perineal method to be the best, so as to avoid the necessity of incising the mucous membranes of the prostate; the sections being scooped out from below, the opening above enabling the operator to exert pressure downwards on the gland from above.

Dr. McKinnon said that he had found hot water would control the hæmorrhage, but if necessary the opening might be plugged.

Dr. R. Whiteman, of Shakespeare, followed by a paper on "Cholocysthomy." He described the history of a case of obstructive jaundice. It was difficult to decide whether it was due to gall stone or malignant disease, but the diagnosis inclined to the latter. Cholocystotomy was performed in the usual manner with success. As all of the bile passed out of the abdominal incision, a number of interesting features were observed in connection therewith. On the administration of calomel, the flow was lessened, but increased on the giving of salicylate of bismuth. It was also noted that when the bile decreased the urine increased, and vice versa. On post mortem it was found that an opithelial cancer occupied the region of the duodeum at the junction of the bile duct.

Dr. Graham said he was very much interested in this case, as he had seen it in consultation. The diagnosis was comparatively easy, as the distended gall-bladder was in the position one would expect it to be, and the accompanying symptoms pointed in the direction of obstruction to the outflow of bile, but he had seen cases where the diagnosis was exceedingly difficult, the gall-bladder

having assumed such a curious shape as to make it unrecognizable. Regarding the treatment of catarrhal jaundice, he advocated the use of large doses of calomel at first, then salol for three or four days, followed by the continuous administration of salicylate of soda. He was pleased with the experimentation on these cases, as it all tended to throw light on the obscure pathology of this trouble.

Dr. Teskey reported the history of a case where cholecystotomy had been done in which he had assisted Dr. Powell and Dr. A. A. Macdonald in operating. The gall-bladder was not enlarged. The crescentic incision had been made through the abdominal wall. There was considerable inflammatory adhesion of the omentum. Seventy small gall stones were removed. On account of the adhesions, it was impossible to reach the duct, but it must have been patent as the bile soon flowed through the intestinal tract, as was shown by the coloration of the fæces and the closure of the incision.

Dr. Oldright told of a case he had operated upon where there was pyæmia, the seat of pus formation being supposed to be in the neighborhood of the liver. A stone was found blocking the cystic duct, which was pressed along the duct by means of the fingers into the duodeum. The diagnosis was supposed to have been distended gall-bladder before opening the abdomen. On opening, the lump was discovered to be floating kidney.

Dr. Macdonald said in these cases death occurred after the primary operation in 19% of the cases, but where it was done as a secondary, the death rate was reduced to about 10%. An objection to this operation was the loss of such a large amount of bile, which was needed in the intestinal economy. By its loss there was intestinal indigestion. This loss would not occur after cholecystotomy. Another procedure was cholecystenterostomy by aid of Murphy's button. Murphy's latest results show 100% of recoveries.

Dr. Starr presented a patient suffering from lumber hernia. About twelve months ago, while stooping down and lifting, he was seized with a stitch in the side. This was accompanied by the occurrence of a swelling about the size of a duck's egg in his back, below the last rib. The lump has persisted. It is slightly tender on pressure, elastic to the touch and reducible. As it returns into the abdominal cavity it gives a gurgling sensation, and emits a tympanitic note if percussed while the patient strains. Its exit was through the triangle of Petit. Its relations Dr. Starr showed by means of charts.

### MEDICAL SECTION.

Dr. Mitchell in the chair.

"The Artificial Feeding and Care of Children," was the title of a paper by Dr. McCullough, of Alliston. He condemned the use of proprietary foods, and spoke of a combination of foods he had used, indicating the amount prescribed for an average-sized child at varying periods up to the age of twelve months. The artificial foods, especially in the country, had to be at once cheap and easily obtainable. The composition he advocated consisted of barley water, diluted cows' milk and sweetened water.

Dr. McPhedran thought the general principles outlined in the paper good, and could hardly be improved upon. The remarks as to temperature of food reminded him of the Irish nurse, who got the proper temperature of the child's bowels by inserting her hand: if it burnt them, too hot; otherwise, all right. But seriously speaking, that was about the way people temper a child's food. He advocated the thermometer for this. The food prescribed by the paper read might suit in the country, where the sanitary conditions were good, but not so in the city, and physicians had to resort to other artificial foods—often barley water alone, tea, broths, etc.; sometimes a little starch and rrrowroot. But there was no universal rule, and each case had to be considered by itself.

Dr. Gregg severely denounced proprietary foods. Though people had been warned as to the evil nature of them, these foods are still largely used—more so in Canada than in the United States. From 40 to 50% of such foods consists of starch which an infant under seven months is unable to digest. He thought, instead of whole barley being used, as advocated by Dr. McCullough, crushed, or even ordinary pearl, barley preferable, being more easily prepared and answering the purpose better. He thought the subject of fixing amount for children at certain ages beyond our control, as the stomachs of infants were of different sizes at the same age; The proper rule was to give the child as much as it wants; if it takes too much, the surplus will be thrown up, and no harm done. Sterilization of milk was not important save in large cities, where abundance of fresh milk was not procurable. Experiments in American hospitals showed that children were pratically starved to death by the use of it where it had been sterilized at a temperature of 212°. As a result, the practice was to have the milk placed at a temperature of about 145° for 15 or 20 minutes.

Dr. Machell said that although part of the ablumen is cows milk in coaguable, part is not, and in this respect it is similar to the mother's milk; but in the latter, the percentage that is non-coagulable is twice as great as in the former. He agreed with Dr. Gregg in denouncing proprietary foods, which he said were manufactured not for the purpose of benefiting patients, but to make money, and physicians should not play into their hands when as good foods could be prescribed.

He also cited Dr. Roach, of Boston, for the statement that water will do as well, if not better than, barley water, the function of it being to get in between the casein, and prevent it from becoming lumpy. He advocated, as well, the Berlin bottle, obtainable in all drug stores at a cost of 15 cents.

Dr. McCullough in reply said that pearl barley did not come up to the mark as the virtue of the ordinary barley was, the misciline principle which is the most active. It was contained near the surface of the hull. In pearl barley it was removed. The amounts mentioned in his paper were only guides, and not intended to apply in every case. He did not think, in the case of a child, any more than in that of an adult, should food be taken till vomiting results.

Dr. Price Brown read a paper on "Atrophic Rhinitis," which was exhaustive in the cause and treatment of this trouble. Though believed by some, it is by no means incurable, but requires a long and careful course of treatment.

Dr. Wilson, of Fenelon Falls, asked if any constitutional treatment was used. He thought in some of his patients he obtained good by using some of the alternatives. He thought the origin of the disease was in infancy, and caused by the carrying of the infant with bare head or by exposing it to drafts or cold temperature, also later on in life by the clipping of the hair to the scalp.

Dr. Price Brown said he used the ordinary prescribed tonics. Patients improve in health without any medicine if the offensive discharges can be got rid of, but these foul secretions do injury to the system. Where a tonic was required he generally gave iodine and strychnine. Douches of water in large quantities were objectionable. Where secretion took place was where cleansing was required. He did not approve of covering children's heads, he considered it well, indeed, to give them cold baths.

Dr. Doolittle explained the operation of electrical massage, worked by a small storage battery, which he showed.

Dr. Campbell, of Seaforth, read a paper on "Placentia Prævia," giving the history of cases in his practice, and touching on most of the points raised on a discussion of the subject at an early part of the Convention.

Dr. Temple wished to know as Dr. Campbell advocated early termination of labor, why in a case he cited, he did not follow this rule. He did not see either the rational of giving of sulphate of magnesia after delivery, as blood had been lost, and the patient was weak, unless it was to prevent milk fever.

Dr. Spence agreed with Dr. Temple. He spoke of the difficulty of the diagnosis. Good common sense was necessary in the treatment, and by the exercise of this, one would get as near the subject as by following any particular treatment laid down. He reported the different stages of an important case in his practice. He thought sufficient aseptic precautions were taken by thoroughly washing the hands with soap and water.

Dr. Scadding described the method of dilating the os, followed by Dr. Harris, of New Jersey,—the thumb being placed at one side of the cervix, while the first and second fingers are flexed,—thus getting the strongest muscles with which to dilate. In a series of 8 cases, he was able to dilate the os in each of them within 25 minutes.

Dr. Mitchell asked the reason for using injections so frequently after labor terminated. He did not think injection of antiseptics necessary, unless there was reason for it, and this could be readily ascertained if the patient were watched.

Dr. Campbell, in reply to Dr. Temple, stated that the patient was being watched by him, and there had not been enough loss of blood to weaken her; otherwise he would have operated. His object for delay was that the patient was not in a fit state to be delivered, the os and the cervix being rigid. He gave chloral to soften the os and relax the parts, accompanied with a small dose of morphine, in this way preventing laceration. The reason he syringed out the vagina afterwards was to prevent sepsis.

*(To be continued.)*

## Selected Articles.

### PNEUMONIA OF THE AGED.

The title, Pneumonia of the Aged, is used in contra-distinction to Pneumenia in the Aged. The essential differences between the two clinical types were recognized and carefully described by the older clinicians, notably Grisolle and Trousseau. The distinction established by the two terms has been preserved, as it promotes the object of this paper. Any argument in support of the use of the term "pneumonia of the aged" seems unnecessary at this time. It has been called asthenic, latent, and senile, with reference to its peculiar symptomatology. Latent pneumonia occurs as a complication of various conditions and diseases, and the term senile pneumonia is employed in a manner too broad to encourage proper discrimination. Pneumonia affecting the aged may be characterized by the usual clinical history of the disease as manifested in earlier years, and resembles the so called sthenic or frank type. It attacks the strong and well-preserved individual and is accompanied by reliable indications for diagnosis. The extreme type is not common, but corresponds with the affection in middle life. This form has been designated as pneumonia in the

aged. Compared with pneumonia of the aged we notice varying degrees of dissimilarity, and the reason becomes apparent why the latter has been considered as belonging to a distinct clinical variety. To avoid the dangers of drawing fine distinctions and differentiating too arbitrarily, it may be well to state that conformity of type based upon clinical features is usually a matter of gradation, and that no attempt need be made to adhere to a rigid classification. Pneumonia of the aged differs from pneumonia in the aged in the following manner :

The disease is peculiar to the old and infirm, latent in its development, obscure in its manifestations, and erratic in its course. The familiar symptoms of pneumonia are absent or subdued, owing to mental and physical decline and debility and associated apathy of function and loss of sensibility and vigor. The constitutional symptoms are usually so slight as to cause no comment or complaint, and even when present early in the affection they are rarely sufficiently distinctive in character for one to decide whether they are due to grave disease or those ill-defined and transitory ailments of feeble old age. The attention is not attracted or the diagnosis most difficult, and consequently the disease is frequently unperceived and death assigned to other causes. Experience with the affection is mostly limited to institutions for the aged. The autopsy occasionally reveals evidence of advanced pneumonia, previously unsuspected. It is often the cause of mysterious sudden death in the aged, and might be found many times where such causes are assigned as senile debility and cardiac disease. The literature contains very little mention of this common and very fatal form of pneumonia. In the climate of the Northern States pneumonia appears to be the cause of more deaths among the aged than all other diseases combined. Statistical information seems to show that the mortality rate in those over sixty years of age is about eighty per cent. and steadily increases with advancing age. Some authorities state that after sixty-five years pneumonia is the cause of death in ninety per cent. These conclusions at least demonstrate the frequency of pneumonia in old people, and make the recognition of the most obscure and elusive cases important. In 1887 I published a rather complete clinical study of pneumonia of the aged, and endeavored to direct attention to the vague manifestations of this often perplexing affection. Since that time increasing experience has only strengthened the belief that it is frequently overlooked entirely, and that many who have not enjoyed special opportunities for investigation meet with unnecessary difficulty in determining its presence.

At this time the object will be to attract renewed attention to the subject, and to point out some of the chief clinical features to assist in diagnosis. It must be remarked that there is a vast difference between vigorous and feeble old age, and in the resistance which these conditions offer to disease. We are accustomed to classic descriptions of the indications of morbid conditions in the average human being of adult life, and perhaps too little stress is laid upon the influence of senility and its accompanying changes in structure and function. In debilitated old age the symptoms are less pronounced, and the value and character of physical signs often lose their significance. The inquiry must be directed, therefore, to the evidence of disease as modified by these changes, and their value estimated many times by another standard of health. We are chiefly concerned with the facts that pneumonia of the aged is atypical when compared with the description in the text books, that the difference in clinical manifestations is due to the causes already mentioned, and that a diagnosis depends upon an acquaintance with their relative value and meaning. The vast majority of all cases occur between November and May. In Buffalo the largest number develop in March, and seem to follow a cold northeast or east wind, whether the individual be confined to the house or not. The upper lobe is more often affected than in the middle-aged adult, and the disease more inclined to extend downward. In the stage of congestion the affected portion crepitates less, and the lung does not sink, as a rule, in water. The exudate is more fluid, and it is sometimes difficult to decide whether the lung is simply congested or beginning consolidation is present. Sometimes, owing to extreme rarefaction, the lung when hepatized does not sink to the bottom of the vessel. The left lung is involved nearly if not quite as often as the right.

The pneumonia is more often double, and œdema is much more common. Tubercular pneumonia is more common than is generally believed, and there is a similarity in the clinical features. Lobar pneumonia, due to mixed infection, often follows tubercular infiltration in the aged. The clinical history is marked by the absence of the usual symptoms, or their obscurity. There are cases where the patient does not betray the slightest indication of his condition. He may walk about as usual, partake of his meals, and suddenly die without any complaint or reference to illness. As a rule the symptoms are indefinite, and much care is required for their detection. Any disturbance does not cause so much uneasiness as in the middle-aged, and subjective symptoms are not mentioned. The premonitory symptoms rarely attract any attention, and the invasion of the disease is often unrecognized, because the symptoms are vague and not of a nature to direct attention to the chest. At times, however, the onset is pronounced, and may be accompanied by delirium and great prostration. The initial chill is rarely well marked

and is sometimes absent. The most constant and reliable symptom at the outset is the elevation of temperature, usually ranging from 102° to 103°. The temperature should be taken in the rectum, as the axillary and buccal temperatures show inaccuracies and fluctuations in the aged. Later the temperature may reach 104° to 105°, or even higher. The pulse, owing to the frequency of arterial changes, is unreliable; acceleration is the cause of suspicion, but trustworthy information can best be obtained by cardiac auscultation. The respirations are not relatively increased, as in adults. Sometimes they are of a puffing or panting character. Dyspnœa and cathing respiration is not particularly noticeable unless the apex is affected. The respirations rarely pass twenty-five or thirty per minute. Any effort in breathing, combined with raising of the shoulder, should lead to an examination. Cough may be slight or wanting. The cough and dyspnœa of chronic bronchitis or asthma sometimes subside during an attack of pneumonia. The characteristic sputum is rarely present. It is oftenest thin, lacking in cell elements, and, when due to coexisting œdema, watery. My experience is in accord with the authorities who state that the expectoration never becomes purulent in the stage of resolution. The absence of pleurisy as a complication is most notable, and in the large proportion of cases there is no complaint of pain. The countenance affords valuable information in the way of expression and change of color, and the mental faculties are almost always perturbed in febrile disturbances of old age. The course and duration of the disease differ from those of middle life in that the completion of the earlier stages is sooner accomplished and the stage of resolution more protracted. Recovery, when it occurs, is generally marked by a somewhat lengthened crisis; and the critical diarrhœa continuing through the lysis is more common than a critical sweat.

The inexperienced physician finds that physical examination of the chest of the aged is a new problem. Senile changes in the lungs and chest wall modify sounds, and practice alone can make one familiar with their altered character. At first there is a tendency to arrive at erroneous conclusions, aside from the suspicions aroused by the slightly altered breathing, and physical signs offer little information until the exudate has filled a portion of the lung to a considerable extent; dullness is often a sign of relative value only. The crepitant râle is seldom heard. It may be developed occasionally by obliging the patient to take a deep inspiration, but as a rule the disease is not detected until too late. If the breathing is tubular anywhere it is apt to be heard over the root of the lung. Dullness over the upper lobe is not as marked as at the base, owing to the rigidity of the sternum and chest wall and the retraction of the lung away from the ribs. Tubular or bronchial breathing, when found, is most distinctive and sufficient for a diagnosis. It is even more intense than that heard in the adult, and is often more metallic in quality. Bronchophony is changed somewhat by the weak, quavering voice, and resembles ægophony. Deep percussion is more apt to bring out the resonance of the whole chest, and should be employed carefully. Areas of dullness found in the chest of the aged may be due to senile changes, and are often confusing. Fluid in the pleural cavity is often overlooked, and much may accumulate with slight disturbance. The insertion of a needle is more often necessary to arrive at a diagnosis. Cases occur in which the exploration of the chest gives negative or confusing results, and it becomes necessary at times to depend somewhat upon the associated symptoms; especially is this true in the earlier stages.

These briefly constitute the more reliable signs and symptoms. The important point in diagnosis is to suspect and search for trustworthy evidences of the disease. It is necessary to appreciate the extreme frequency of pneumonia in old people; the fact that of all acute diseases of the aged, pneumonia is oftenest latent, and that it produces the highest range of temperature and greatest prostration. The symptoms to be observed with greatest caution are the chill, brown, red, or dry tongue, malaise, change in breathing, malar flush, cyanosis, delirium, cough, slightest pain, prostration, increase in pulse beat, and finally the rectal temperature. The symptoms are confusing at first, and often point to cardiac and cerebral disease. It is a wise rule to exclude pneumonia of the aged, and not disregard the slightest deviation from the usual standard. Of all the characteristic symptoms, elevation of the rectal temperature is the most constant and important. I have never noted its absence, even in walking cases or in the insane. At times it is the only indication of acute disease in the aged. Broncho-pneumonia may not be associated with pyrexia, but my experience would indicate at least that *lobar* pneumonia of the aged is seldom afebrile in character.

The diagnosis must rest largely upon the high temperature and the physical signs. The diseases which frequently simulate pneumonia of the aged are hypostatic congestion, simple congestion, œdema, capillary bronchitis, pleurisy with or without effusion, and tubercular infiltration. The differentiation can not always be made by consulting the physical signs, but generally it is uot difficult if prominent features of the case are considered. The points of differential diagnosis are not so broadly defined in the aged, and analysis must be cautious and slow. Finally, pneumonia of the aged is often secondary or complicating, and many times hepatization is revealed at the autopsy as the direct cause of death. In these cases the dis-

ease is unsuspected because the attention is confined to another ailment.—J. H. Pryce, M.D., in *N. Y. Med. Journal.*

## THE CARE OF THE BABY DURING THE HOT MONTHS.

The heated term is now fairly inaugurated, and anxious mothers are already asking their trusted family doctor what shall we do for the baby? And how may summer trouble, so fatal to infantile life, be avoided?

Rachel is weeping for her children! Soon the little white insignia will hang from many a doorpost in our large and populous cittes, for

> "There is no flock how'er tended,
> But one dead lamb is there;
> There is no fireside howso'er defended,
> But has one vacant chair."

It is far better to prevent than to cure disease, and, first a few words to the laity. Don't attach too much importance to the fact that the baby is teething and has to have summer complaint. A large part of the infant mortality may be laid at this door. It is not so much the presence of teeth, but the absence of teeth and the presence of indigestible food, which initiates the attack. This second summer business is not over-rated, but misapplied, giving us erroneous deductions as to pathology. I have no trouble in carrying thirty or forty infants in one asylum through the summer without a single case of summer complaint, provided my rules are carried out to the letter.

The dress of an infant below two years must consist of a sleeveless shirt of thinnest all-wool baby flannel, reaching to the crest of the ilium, covering the thorax and abdomen. This should should be the only flannel worn and is necessary to protect the vital organs from being suddenly chilled by sudden change of temperature, as from perspiration, or thunder showers. No flannel skirt is allowed. A calico slip reaching to the feet, covering the breast and body, completes the rig, but there is no reason why a change corresponding to change in temperature should not be made. Up to the first of July one prolonged immersion bath should be given every morning; after July 1st and up to September 1st, this should be supplemented either by tepid sponging or tepid salt water bath every evening before retiring, both the sponging and the bath to be mildly salted.

For babies artificially fed care must be taken not to increase their food under the increased thirst, but filtered water should be given often in place of food. The digestive powers are weakened by prolonged heat and nurslings at the breast are applied even more frequently than in cold weather, because of their thirst, which should be relieved by giving water boiled or filtered. In older children, several cups of nicely prepared Mellin's food should be given instead of hearty meals of meats and vegetables. All foods should be slightly salted either with pure table salt or phosphate of soda.

When the bowels become relaxed, especially with copious malodorous liquid actions, medical advice should be sought, rather than the counsel of the ubiquitous druggists. It may be said that this *quasi* medical man is the only person who, for a few dimes, is willing to assume the responsibility of pouring "medicines of which he knows little, into bodies of which he knows less." There is no field of practice in which antiseptic medications has proven so beneficial as in pediatrics and the heterogenous mixtures of chalk, kino and opium have been relegated to well deserved oblivion in infantile putrescent diarrhœa. The druggist is the only man who has not moved up, and it is exceedingly seldom that I get a case of summer complaint in infants belonging to the middle classes in which the druggist has not had the first pull with opiates and cordials, and this is the reason that a more marked diminution of mortality has not been recorded—from our improved therapeutics.

Very small and frequently repeated doses of calomel triturated well with sugar of milk, salol, guiacol, thymol, beta napthol, sulpho-carbolate of zinc and carbolic acid in lime water singly or in judicious combination without opium and an aseptic dietary will be the practice of the best physicians this summer. For cholera infantum, a disease entirely distinct from the ordinary summer diarrhœa, hypodermic medication should alone be thought of, and may be relied upon even in the most desperate cases. The practitioner should provide himself with a very fine outfit in the way of a hypodermic syringe, with very delicate short, sharp needles. A tablet of $\frac{1}{4}$ morphine and 1 150 atropine should be dissolved in a measured drachm of distilled water, four drops of which should be injected in the youngest infant, and ten in infant of two years. In the vast majority of instances, a single injection is sufficient to arrest the vomiting and purging, and to make a decided determination of blood to the skin.

The advantages which I claim for this treatment are absolute safety, in the knowledge that a definite therapeutic dose has been absorbed; promptness of action; and arrest of all exmosis. Medicines administered by stomach in cholera are entirely ineffectual, and when absorption takes place, after frequent repetition of doses, fatal narcotic poisoning attended by suppression of urine is the result. When, as is usual after the first quiet sleep, osmosis is restored, intestinal antiseptics may be administered. In dysentery, with mucous and sanguinous stools, salines and especially small and frequently repeated doses of

Rochelle, are alone necessary to a speedy cure.—J. A. Larrabee, M.D., in *Louisville Med. Monthly.*

## THE NEWER HYPNOTICS.

The following is the substance of the comments of a French chemist and physician, M. Bardet, on some of the more recent hypnotics, as given in the *Journal do Médecine de Paris*, No, 6, 1894 :

Hypnone is, as we are aware, acetophenone ; it produces profound sleep in animals, and, according to the researches of M. Dujardin-Beametz, remarkable results may be obtained with it in nervous subjects, refractory to true hypnotics. This accords with the observations of alienists who are said to have found it useful in alcoholic and insane subjects. In M. Bardet's opinion, it is a very energetic agent, comparable to the narcotics, without the disadvantages of the alkaloids on the circulation and the digestion; it does not embarrass the emunctories, and in this it possesses a real advantage over the narcotics.

All the fatty ethers and related substances, the oxides like sulphuric ether for example, have a marked hypnotic action, and the study of their action is of interest. M. Bardet has studied the acetate, nitrate, and tartrate of ethyl, and the valerianate of amyl, the inhalation of the vapors of which have a clearly marked hypnotic action, thus having the advantage of avoiding the absorption and irritating action of the drug in the digestive tract.

Urethan is also a fatty ether, the carbonate of ethyl. It has a slight hypnotic action, and, as shown by M. Huchard, a large dose is required.

All the hypnotics of the fatty ether series have one interesting feature, their action though rapid is rather transient, they produce sleep quickly, and, if nothing interrupts it, it may last many hours, but they are unsuitable for excited cases, who would need large doses which would cause anæsthesia, analogous to that of the general anæsthetics. They should be used, therefore, only in cases of mild excitement, or essential insomnia, especially in women and children.

The sulfonals are complex sulfone ethers, obtained by the reaction of acetone on ethylmercaptan, they are, therefore, intermediate between the etherial and the aldehyde hypnotics. The first class, when given in more than moderate doses, approach the anæsthetics, those of the latter are more clearly hypnotic.

Sulfonal is diethylsulfone dimethylmethane ; if we replace one of the methyl groups by an ethyl group (making thus three ethyls), we have trional, and if we substitute two ethyls for two methyls, we have tetronal. All these bodies have a close resemblance, they are all sulfonals, their action is identical in the same dose, they cause a deep, heavy sleep, and their action is prolonged long after waking, a sort of sluggish intoxication. Sulfonal has, however, this great advantage of never causing any excitement as occasionally occurs with chlorals, and not irritating the digestive tract. These facts suffice to explain the important place it takes in therapeutics.

There remains the numerous aldehyde derivatives. In the first rank comes paraldehyde, a rather unreliable drug, much inferior to the chlorated aldehydes ; its action is very comparable to that of alcohol, whence comes probably its success in alcoholics.

Next follow methylal or ether demethylaldehyde; a drug too little employed, which may be of great service. It has been called unreliable, a reproach merited in turn by every drug, and more often it is the subject that is the cause of this unreliability.

Methylal, in some respects, comes near to being the ideal hypnotic ; it acts very quickly, but as it is eliminated, its effects are transitory. Unfortunately it is as irritating as chloral.

We come now to the numerous class of chlorals ; chloral hydrate, chloralamide, chloral ammonium, chloralimide, chloralose, hypnal or chloral antipyrine, someral or ethyl-chloralurethane, ural or chloralurethane, all similar in their action. The dose is the important thing, and usually too much is given. For simple insomnia about .50 gramme is sufficient, and of chloralose about .80, and of hypnal 1., each equivalent to about .50 of chloral. With the other derivatives the same is true ; it is needful to give the corresponding dose of the true hypnotic in the combination.

It seems certain that the complex chlorals have a real advantage over chloral hydrate. The combination of this latter with the amine ammonium, antipyrine, glucose, methane groups, has the effect of fixing the chloral in a less irritating molecule and having it gradually liberated in the economy. When combined with active agents, such as antipyrine, the effects of the latter will also be secured. Conclusions :

The hypnotics have each their value, dependent on the class to which they belong.

For simple light insomnia, the fatty ethers, and among them urethan, are of service.

Sulfonal is a sovereign remedy for obstinate insomnia.

Methylal approaches the fatty ethers in its rapid and transitory action.

Chloral and its derivatives are typical anæsthetics ; their dose should vary between 0.50 and 1 gramme of component chloral ; in cases of light insomnia it is of advantage to use chloral compounds that are unirritant to the digestive tract.

Hypnone has an energetic action, especially favorable for agitated cases.

The bromides should be reserved for the treat-

ment of nervous affections, and have only a secondary hypnotic effect.

Lastly, the narcotics, whose action approaches that of hypnone, may be utilized in the place of the hypnotics, when the latter have failed.—*American Journal of Insanity.*

## SCANTY MENSTRUATION.

*Mr. President and Gentlemen of the Society*: Through the polite courtesy of our worthy president, Dr. Boendall, and Dr. Andrew F. Currier, of New York, I have been invited to take part in this general discussion on menstruation, and its abnormalities. That portion of the subject being allotted to me being "Scanty Menstruation," and, as naturally happens at these meetings, time for the reading of papers on all subjects must of necessity be limited, because of the vast amount of work to be gone through with during the session, and I feel that like the first portion of my subject the term *scanty* may well apply to whatever oral flow I may now make before you. As I now understand it scanty, like profuse, menstruation, indicates one of the ordinary departures from what we all understand as characteristic of a normal or healthy discharge of menstrual blood from the uterus, any deviation from which, the term "paramenia" might aptly apply.

One of the most interesting works on all the peculiar diseases of womankind to me is that of Dr. Barnes, of London, under whose tuition I had the opportunity of gaining much in an early training which proved so beneficial to me in after years. This author classifies the subject of disordered menstruation under the one term "amenorrhœa," including deficiency of the flow. But it would seem to me, that terms of this nature, like so many others we as physicians have to use in medicine, are inadequate to express that which we really mean. Many different conditions may exist that lead to exemplify one symptom to us, and this one much more prominent than others that are present; at the same time this *main symptom* is that which attracts the attention of the patient, and which eventually, causes her to seek medical advice. It must therefore become evident to us all that to thoroughly analyze our patient's condition and to discover if possible what are the associated phenomena connected with our case, as well as to what the cause of the most prominent symptom is due, becomes a part of our serious duty to discover.

With these preliminary remarks, allow me then to take up some of the various causes which seem to induce scanty menstruation, as a part of the general subject under discussion.

To my mind the most fertile soil to develop such a malcondition is to be found in the state of the blood, and by this I mean that when the blood plasma is wanting in its normal constituents, and, where the blood globules are deprived of their natural ingredients, both caused by malnutrition, the general body *must suffer*, and the term "chloro-anæmia" therefore has thus been given to express such a condition. As to this class of chlorotic patients there could be much said, more especially by the specialist in nervous diseases, and, as I write, I can bring to my mind much of solid worth as coming from the pen of such men as Goodell, and Mitchell of Philadelphia, who not only recognized the curious neurotic elements connected with such cases, but also through this knowledge made application of the same by instituting a course of treatment which has availed much for suffering women.

Should we draw a comparison between the society woman of to-day, the humble, hard-working peasant and the Indian squaw or stout negress of our southern latitude, it would be difficult to believe that all could have sprung from the same parent stem. Indeed, observation goes far to prove that those of the female sex who are not exposed to deprecating influences can compete in strength and endurance with the men of their races. From such facts as these, logically reasoning, the human female if properly developed and placed beyond conditions which militate against her physical well being would in *no* degree be the inferior of the male. The present customs consonant with the age in dress, exercise and general hygienic details, seems to be the vice which tends to bring about this condition of "chloro-anæmia," with the result of a disordered menstruation and in the scantiness of its normal flow.

Long ago Dr. Thomas A. Emmett pointed out the importance of not permitting young girls who were just coming into their maturity to exercise their mental capacities at the expense of their physical capabilities. There is but little question that *such* advice was good, and instead of the young ladies of to-day being encouraged to engage in outdoor sports. very few have had such opportunities, and, I imagine that it would be wiser for them and their general health were they thus properly trained and instructed; want of air and exercise in deteriorating the blood, enfeebling the two great systems of the body, the nervous and muscular, should be properly classed as two of the most important factors as causes for so many of the menstrual disorders of the day. The necessity for the proper maintenance of these symptoms must be recognized, and the "mens sana inc in coporae sano" surely becomes essential to a healthy condition. Girls of tender age are required to apply their minds too constantly to master studies beyond their mental capacity, because of the so-called "progress of the times." The results from such training being a rapid

development of the whole cerebro-spinal nervous system; precocious talent, refined and cultivated taste, etc.; but, on the other hand comes as a result, the morbid impressibility that plants itself upon the generative organs. And added to this class of such functional uterine morbidities, among which is to be placed scanty menstruation, would naturally come the subject of the improprieties in the manner in which women clothe themselves. I cannot better than express with Thomas of New York that the dress adopted by the women of our town may be graceful and becoming; it may posess the great advantage of developing the beauties of the figure; but it certainly is conductive to many menstrual troubles. The process of respiration is entirely done by the thoraic muscles; the diaphragm taking a most important part in the performance of this physiological process, the proper action of this function must therefore be interfered with by the current custom of tight lacing. The habit of contracting the waist in such a manner "accomplishes what the surgeon does when he holds a broken rib in place by a snug bandage." Thus come many troubles to the pelvic organs which lie in such close relation, and which must therefore partake of functional difficulties. In estimating the effects of direct pressure from the position of the uterus, its extreme mobility must be constantly borne in mind. No more stiking evidence of this fact can be cited than that as proven by the use of the Sims speculum in our usual examinations.

Other causes might be enumerated as giving rise to this form of disordered menstruation, as imprudencies during the menstrual nisus, or after partruition, prevention of conception, or induction of abortion, etc. But time will scarcely permit of any particular discourse upon these subjects. Suffice it to say that they remain unfortunately as factors of causation, and I am afraid before much improvement can be attained for their removal a desire must first be cultivated in the minds of those who are the sufferers, and as a rule, I regret to say, that in my experience neither desire nor the appreciation of the importance of such a subject toward the requirement of physical excellence sufficiently exists among the more refined and better class of the women of to-day.

Chloro-anæmia as a physiologico-pathological condition, may, and can well exist, resulting in scanty menstruation. As to climate and its influences upon this function (menstruation) one might say something, but the subject is so well known to us all, that I shall refrain from speaking of it except to mention it as an additional cause of the malady in question. Serious disease of the kidneys or of the lungs, as well as many of the xymotic troubles so frequently encountered, are also to be regarded as contributing causes toward disturbing the normal function of menstruation, often bringing about a scantiness of the flow, and even at times causing it to cease entirely. Often a leucorrheal discharge at periodical intervals in women thus diseased takes the place of a normal flux, which subject has been thoroughly discussed by Dr. Currier, of New York, at different times before this society.

In my experience I cannot say that I have met with other causes for scanty menstruation. It may be possible that many forms of uterine tumors or other pathological growths connected with this organ are productive of it, yet the most pertinent factors seem to me to be those already cited, chloro-anæmia being the most prominent of all. With this in mind, therefore, it would seem to appear from a purely physiological standpoint, that treatment should be directed toward correcting so far as is possible this condition.

According to Virchow, chlorisis or chloro-anæmia is to be distinguished from leukæmia or leucocythemia, in that the entire number of blood globules is *less*. In leukæmia the colorless corpuscles seem to take the place of the red ones, and a true diminution in the number of the cellular elements in the blood is not produced. In chloro-anæmia the elements of *both* kinds become less numerous without the occurrence of any disturbance in the numerical relation between these different corpuscles. This sage pathologist goes on to say further, that "Anatomical observations indicate that the foundation of chlorotic ailments are very early laid; for the aorta and the larger arteries are usually, and the heart and sexual organs frequently, found imperfectly developed."

To originate a new function, to bring to perfection a hitherto unexercised power, *must* make great demands upon the physical strength, and often, unfortunately, these demands are larger than are required for its continued activity. Numerous instances must come to our mind where, after menstruation has become fairly established, chloro-anæmia suddenly and unexpectedly makes its appearance, suppressing either partially or completely the flow. In many such cases emotion frequently plays an important part. Jealousy, disappointments of various kinds, especially those offending the affections; the "spretæ injuriæ formæ" are often the immediate antecedents which eventually result in impoverishment of the blood. Naturally in the treatment of such conditions as described, iron as a remedy par excellence is the first suggestion that appeals to the physician, and such may be true, but I might add only in its *timely and proper administration* which requires more judgment than is commonly shown, and from clinical experience I can well agree with Barnes, that this drug is only tolerated after vascular excitability or irritability is assuaged, it then becomes readily assimilated. To bring

about this result most satisfactorily is best done by the use of salines, and I have found that the old preparation of the "liquor acetate of ammonia" when freshly made fulfils the purpose most admirably. After the use of this or other salines iron can be given with most decidedly beneficial effects.

Electricity, too, as suggested by many, holds a most important place as a factor in the treatment of this disorder. Again I can agree with Dr. Currier's statement made before this society, that I fail to see much benefit arising from the use of manganese in any of its various forms. Other drugs might be mentioned, all useful in their way, in the treatment of this malady, each one having its champion to second its merits, but time will not permit at present of speaking further in this direction.

To summarize then I would say:

1st. That scanty menstruation is most usually the result of mal-nutrition in both young and middle-aged women, married or single.

2nd. That the primary seat of this trouble lies in the condition known as chloro-anæmia.

3rd. Its treatment must be directed in an intelligent manner toward rectifying this condition.

And lastly, that a persistent patience must be persevered in with the various forms of treatment laid down, if a permanent cure is to be expected. —Franklin Townsend, M.D., in *Galliard's Medical Journal.*

## DELAYED UNION IN FRACTURE.

In these days of antiseptic surgery, we are, perhaps, a little too hasty in regard to the treatment of delayed union in fractures and do not give Nature time to effect repair. The length of time taken for repair was unusually long, yet the result in both cases here reported has been perfect.

CASE I.—*Delayed union in a fracture of the femur.*—(Notes of Dr. Wm. H. Shipps, of Bordentown, N.J.) On January 20, 1893, L. M., a young woman, seventeen years of age, while coasting, was violently thrown from a sled, sustaining a fracture of the right femur at about the junction of its middle and lower third. She was at once carried to her home, placed upon a firm mattress and sandbags and extension by weight and pulley employed. The patient, an intelligent girl, recognized from the start the importance of keeping the fragments in position, and labored in every possible way to avoid disturbance of the limb; so determined was she in this respect, that she avoided in so far as possible, a regular evacuvation of the bowels, although assured of the folly of such a course. Having a most capricious appetite, it was difficult for the first six weeks to get her to take a sufficient quantity of nourishment, although the necessity for this important aid in bone repair was constantly urged upon her.

At the end of four weeks the dressings were removed and the limb carefully inspected. No shortening was detected, but to my chagrin no attempt at union had taken place, notwithstanding the parts were in perfect apposition. The dressings were carefully re-applied.

On March 20, two months after the injury, an examination showed entire absence of bony union. At this juncture I requested Dr. Morton to see the case with me. It was agreed to resort to daily massage of the entire limb, especially in the viciniy of the fracture, and to lessen the amount of extension. The limb was also encased in a firm dressing made of two Russia felt splints; a posterior one, extending from the great trochanter to within six inches of the ankle; an anterior, extending the entire length of the thigh, firmly held in place by a roller bandage. Four weeks later the patient was allowed to get out of bed daily and walk about on crutches, care being taken that no weight be borne npon the limb. This plan of treatment was faithfully carried out; the appetite of the patient materially improved.

In the course of three weeks the circumference of the limb had visibly increased, and an evident attempt at bony union noticed.

From this on the limb gradually improved in size and strength, until at the expiration of eight weeks from the commencement of massage, at which time Dr. Morton again saw the case, consolidation was complete. The dressings were continued for a few weeks longer, when a single roller bandage took the place of splints. Careful measurement of the two limbs at this time failed to show any appreciable shortening. Altogether the case made a most satisfactory recovery.

CASE II.—*Delayed union in fracture of the leg.*—On August 1, 1893, Captain A. S., aged fifty-one years, while at Ivigtut, South Greenland, in command of his vessel, received an injury to the right leg by the fall of a bulkhead or partition which separated the cargo of kryolite from the ballast; a medical man from the shore who was summoned, found the left leg seriously crushed, and an oblique fracture of both bones about the juncture of the middle and lower third; he applied temporary pasteboard splints, and the patient was hoisted from the hold. Four days later, bandages, pasteboard splints and a plaster dressing were applied. Three weeks later the swelling of the limb had so subsided that he observed not only a considerable movement, but a grating of the bone; six weeks subsequent to the injury the dressing was removed when it was found that there was little if any union; posterior board splint was applied, and two weeks later he

left Greenland and arrived in Philadelphia on October 17th, seventy-eight days after the accident; he then entered the Pennsylvania Hospital. General condition good. The limb was greatly swollen, skin dry and rough, evidently no attention had been given to the condition of the circulation, for the limb had not been out of splints for many weeks, and had not been bathed since the accident; there was little if any effort at repair in the fracture. Attention was first directed to improving the circulation of the limb by soaking in warm water and by massage; fracture box; subsequently Russia felt splints; finally a brace was applied. He was discharged December 11, 1893, with considerable union, which was not firm until the close of January, when he was able to walk without any support. —Thos. G. Morton, M.D., in *the Med. and Surg. Reporter.*

---

Atropine as a Hæmostatic.—The great value of atropine in the various forms of shock is generally recognized, while its hæmostatic properties in all forms of hæmorrhage are not so well known. Atropine, by its power to stimulate both the primary and secondary vasomotor centres, and at the same time excite the cardio-innervating centre, tends to increase the power and efficiency of the heart's action. By its power to stimulate the innervating impulses distributed to the muscular coats of the arterioles and heart, the volumetric capacity of the arterial system is expanded, and more completely filled with blood, and in this way it is taken from the distended veins and the loss of blood is arrested. This change in the position of the bulk of the blood brings about lessened pressure in the veins, and a clot forms, the vessel closes and the hæmorrhage ceases. As a hæmostatic in all kinds of hæmorrhage when the bleeding is of a passive nature it is almost a specific. In epistaxis it is invaluable, if not a specific, in doses of one hundred to a fiftieth of a grain given hypodermically as often as every twenty minutes, until the blood is completely stayed. Dmitrieff reports the successful management of two cases of metorrhagia by atropine.

In one case the hæmorrhage persisted in despite the employment of the usual remedies, including the tampon, but ceased after the injection of one twenty-fourth of a grain of atropine. The second case was that of an anæmic woman, who became syncopal and cold from the loss of blood. The first injection was followed by improvement and the third by the cessation of the bleeding.

Atropine in hæmorrhage has proven in my hands to be the best possible remedy. It is free from danger, acts immediately and can be used conveniently from the fact that most hypodermic cases contain the remedy. A trial will convince one of its great value.—J. Wellington Byers, M.D., in *Charlotte Med. Jour.*

Petiosis Rheumatica. — Before the Clinical Society of London, May 11th, Mr. M. Randell read notes of a case of a married woman, æt. 41, who for some years had suffered from dyspepsia and diarrhœa. She had been much addicted to alcohol. There was no history of rheumatism, acute or chronic. On September 2nd, 1893, she was taken ill with pain and swelling of the joints, accompanied by a rash consisting of papules, some pale, most of them hæmorrhagic, varying in size from a split pea to a five-shilling piece. The temperature was about 100° F. Severe diarrhœa and vomiting set in a week later, the motions containing much altered blood, but the vomit was free from blood throughout. The rash continued till death, the old patches fading away and others taking their place. There was œdema, especially of the hands at times, confined, however, to the region of the affected joints. About a fortnight after the commencement, some of the papules sloughed, leaving foul ulcers. She died on September 21st, after three weeks' illness. The urine contained a microscopic amount of blood. *Post-mortem* petechiæ were found on the serous membranes. The lungs were healthy, and there was no sign of endocarditis. The intestines showed many ulcers, commencing in the duedenum and extending to the end of the ileum, but not to the large intestine. The liver, which was markedly fatty, weighed 103 ounces. The kidneys were normal.

Dr. Rose Bradford said the case was not one of erythema nodosum, the papules being found only in the neighborhood of the joints. Neither was it one of ordinary acute rheumatism, there was no former history of rheumatism; very little swelling and not much pain of the joints. Neither was it one of syphilis; no history of syphilis could be elicited. There were, however, all the symptoms of peliosis rheumatica, except submucous hæmorrhage; but, possibly the gastric and intestinal ulcerations were due to submucous hæmorrhage and subsequent sloughing of the undermined mucous membrane.—*Med. Press and Circular.*

Vaccinal Ophthalmia.—In a recent Bohn thesis Dr. Schmitz discusses this subject, founding his study upon the case of a woman who, in consequence of carrying a vaccinated child, accidentally inoculated her eye with vaccinia. An abstract of the essay is given in the *Presse médicale* for May 5th. The woman was not examined until five weeks after the beginning of her trouble; she then presented ulceration of the cornea with iritis, but without special features. The author considers the lesions as of vaccinal origin, but the reporter, M. V. Morax, thinks that this is by no means demonstrated. The author has found in medical literature five cases of vaccinal keratitis and twenty-five cases of a vaccinal eruption on the eyelids. When the affection develops in the eye

it generally begins by a little ulceration of the lower lid, appearing four days after the inoculation. There is œdema of the eyelids, together with chemosis, which is sometimes very pronounced. The base of the ulcer is usually indurated, so as to suggest a syphilitic chancre. Then further ulcerations are developed on the margin of the lids. On watching the evolution of the ulcers, it may be noticed that they proceed from pustules which, as a rule, do not present the characteristic central depression. The patients often have certain constitutional symptoms. Then, after the lapse of from eight to ten days, recovery begins and advances very rapidly. It is uncommon to see the vaccinal eruption invade the cornea. When it does, it generally forms little ulcers bordering on the edge of the cornea. These ulcers heal without leaving scars. In five exceptional cases the lesion occupied the central portion of the cornea.—*N. Y. Med. Jour., June 2, 1894.*

THE ACTION OF LIGHT UPON THE DIPHTHERIA BACILLUS.—A recent number of the *Archives de Medicine Experimentale* contains an article by Dr. Ledoux-Lebard, detailing the results of experiments undertaken by the author for the purpose of ascertaining to what extent sunlight is effective as a means of destroying the microbes of diphtheria. The special purpose of the experiments was to determine whether the influence of diffused light is destructive of germs as well as the direct rays of the sun, as shown by Roux and Yersin. The conclusions to which he arrived are as follows:

1. The action of diffused light does not prevent the development of cultures of the diphtheria germ, either at a temperature of 95° or at ordinary temperatures. The direct rays of the sun arrest the development of the germs, and sterilize the culture medium in a few days. Diffused light has no bactericide power in relation to bacilli in neutralized bouillon, but has a marked bactericide power in relation to diphtheria bacilli in distilled water.

2. Diffused light kills dry cultures of diphtheria spreads in thin layers, in less than two days (twenty-four hours' exposure to light).

3. The direct light of the sun acts in the same manner as diffused light, but with greater rapidity.

4. The bactericide power of light in relation to the diphtheria bacillus is due almost entirely to the most highly refracted rays of the spectrum.

5. The less refracted rays of the spectrum have little or no bactericide power.

6. Light, by virtue of its bactericide power, sterilizes in less than two days the bacilli of diphtheria, either moist or dry, and hence is a prophylactic agent against diphtheria.

7. In diphtheritic membranes exposed to the light, many of the bacilli are reached only by the light after it has lost a part of its intensity, and hence retain their vitality and virulence for a long time.

8. Light may be utilized in the disinfection of places contaminated by diphtheria.

The persistence of the virulence of the germs of diphtheria is well known, but a careful study of the classical examples of extreme persistence of this virulence shows that in the majority of cases, the contaminated objects had remained a long time protected from the light. In one case, for example, a brush which had been used for making applications to the false membrane of a child, communicated diphtheria to the father four years afterward, having been, in the meantime, wrapped in paper and placed in a drawer.

In other cases the means of contamination has been clothing which had been worn by a diphtheritic patient, and which had been protected from the light in a chest or closet.—*Modern Med.*

PERTINENT FACTS ON VACCINE VIRUS.—Keep in a glass-stopper jar in an unheated room in winter and in a refrigerator in summer. Do not carry in an inside pocket. Do not use too much water. Do not abraid too large a surface. Do not use any dressing. Do not report until the 8th, or better, the 10th day.

Our plan of operating is as follows: We scarify by scraping off the scarf-skin from a surface about one-fourth of an inch square over the insertion of the deltoid muscle, scratching the surface thus abraided in two directions. We touch one side of the ivory point with a drop of water, immediately shaking the excess off; rub this side briskly on the abrasion and then form a paste by using the dry side of the point. We finish the operation by gently scratching the virus in with the point we have used. We are then certain of getting some of the vaccine corpuscles within reach of the mouths of the absorbents. To much water, with the serum that exudes from the arm, frequently washes away the corpuscles, while too thick a paste, if not pricked in, will dry as a varnish, beyond the reach of the absorbents which have been closed by the rubbing process.

If you protect with a shield, see that it is properly ventilated. Failures result from, Using unhealthy or poorly fed cattle. Pressure used in removing Lymph. The clamor of physicians for colorless points. Hot mail-cars, drug stores and physicians' offices. Improper methods of operating. Old goods, or mucilage and croton oil points! sold at cut rate prices, while human lives are sacrificed.—Dr. H. M. Alexander, in *Med. and Surg. Rep.*

PARALYSIS FOLLOWING MEASLES.—(P. A. Lop, M.D., *Gaz. des Hospitaux*). Paralysis following measles is a comparatively rare affection, less than a hundred cases having been reported in all. This

is probably due, however, to its usual transitory character and to the fact that it appears most frequently in the third week of convalescence, after the patients have passed from immediate observation. Two adult cases have been reported, but the usual time of its appearance is that of the appearance of other forms of paralysis.

In the cerebral form, which is most grave but less frequent, paralysis occurs preceded by spasmodic muscular movements and exaggerated reflexes. The electrical reactions remain normal, however, and the disease runs a rapid course.

In the spinal variety, on the contrary, the reflexes are rapidly lost, and the electric reactions are much modified, but the course is most frequently benign. It usually takes the form of paraplegia, commencing with formications and cramps, followed by retention of urine and incontinence of feces. Occasionally it is of the ascendant variety, ending in death by paralysis of the diaphragm. Its diagnosis is easy, as it occurs in convalescence from a fever; its course is rapid, from one to six weeks; the spinal form is frequent, and the patient always recovers.

Its pathology is, probably, a congestion caused by a specific bacillary toxine in the blood, which in the grave forms has produced a true inflammation and atrophic sclerosis.—*International Med. Mag.*

Pneumatic Cabinet in Phthisis.—Dr. Chas. E. Quimby believes, as a result of six years' experience, (*International Medical Magazine,*) with the pneumatic cabinet, "that from seventy-five to eighty per cent. of localized tuberculosis, if seen reasonably early in the first stage, can be brought to and kept in a condition of practical cure by the use of the pneumatic cabinet and adjuvant measures other than climate; that cases of disseminated tuberculosis will be arrested in about fifty per cent. of cases, but will require treatment for long periods; that subacute cases may be arrested and made quiescent, when seen first in the second stage, in possibly fifteen per cent. of cases; that third stage cases, if chronic, are always relieved in their rational symptoms and their downward course made easier; while those following acute consolidation are benefited but little, if any, and without care may be made worse. Bronchial hæmorrhages are arrested almost without exception, and frequently do not return, even when the cases progress unfavorably. With rare exceptions all the subjective symptoms are relieved, even when the phthisis is not arrested."—*Med. Ree.*

Sugar as an Oxytocic.—In the *Revue internationale de bibliographie médicale, pharmaceutique et vétérinaire* for April 25th, there is a summary of an article on this subject published in the *Semaine médicale.* On the strength of observations by Dr. Mosso and Dr. Paoletti, as to the action of sugar on muscular power, Dr. Bossi conceived the idea of administering it in cases of defective uterine contraction during labor. He found that it answered the purpose well, and was free from the inconveniences attending the action of ergot. In eleven cases of uterine inertia during labor an ounce of sugar dissolved in water was given, and in ten of the patients it had a most favorable effect on the pains. The ecbolic action of sugar is apparent in from twenty-five to forty-five minutes, and in many cases it is sufficiently prolonged to accomplish the expulsion of the child. In some cases it has been found necessary to give a second dose of the same amount, an hour after the first one, in order to terminate the labor. The contractions excited by sugar are always perfectly regular, and never take on a tetanic character.—*N. Y. Med. Jour.*

The Effect of Ether and Chloroform on the Kidneys.—Wunderlich, after the examination of the urine in 125 cases, before and after anæsthesia, draws the following conclusions as to the effect of ether and chloroform narcosis on the kidneys:

(1) An already existing albuminuria is often increased by etherization. No such case in which chloroform was given was observed.

(2) Albuminuria can be caused by narcotization with chloroform and ether, more often with chloroform, the relative frequency with which it occurs after the use of chloroform and ether being 11.5 to 6.9.

(3) As a result of the use of chloroform, casts may appear in the urine. This is less frequent after the use of ether. The relation of frequency is 34.8 to 24.6.

(4) When casts are already present, both anæsthetics have the effect of increasing the number.—*Boston Med. and Surg. Jour.*

Protection Against Poisoning by Liniments, etc.—A most ingenious device for preventing mistakes in taking a wrong medicine has been contrived by Mr. R. Watson Councell. These accidents generally occur with medicinal preparations contained in bottles, as for instance, by the taking of a poisonous liniment instead of a mixture. To obviate this, Mr. Councell proposes to adapt the cork of a bottle containing liniment or other poisonous preparation, so that on proceeding to take the cork out a warning is given as to the contents of the bottle. For that purpose the cork is cut in two, horizontally, the two portions being then threaded along the vertical axis upon a piece of string, the lower end of which is knotted so that it cannot be drawn through the cork, while the upper end has a piece of paper attached bearing the word "poison." The two

portions of the cork when threaded upon the string can be put into the neck of the bottle as well as if the cork had not been divided horizontally; but, on proceeding to take out the cork in the ordinary way, only the upper half of it will be removed, and the neck of the bottle will still remain closed by the lower half of the cork, so that the contents of the bottle cannot be poured out. In that way the possibility of unconsciously swallowing a poisonous liniment by mistake would be prevented, and the person endeavoring to take out the cork would be informed, even in the dark, of the fact that the wrong bottle had been taken up. The simplicity of this contrivance is a great recommendation, and it has the further important advantage that it is applicable to any bottle without being a permanent distinction after the use of a bottle for a poisonous article is at an end.—*Brit. Med. Jour.*

EXAMINATION OF SPUTUM.—Zenoni first recalls how mucus has been shown to stain with anilin dyes, and how this fact has been used to distinguish the sputum of pneumonia from that of bronchitis, as for example, with Biondi's three-color stain. The author, however, prefers saffranin. Bizzozero showed how the mucin in cells stains yellow or brownish yellow with saffranin, whereas the nucleus and rest of the cells stain red. The author spreads a thin layer of sputum on a cover glass, and allows it to remain under alcohol for a quater of an hour or longer to coagulate. A half concentrated watery solution of pure saffranin is then applied. If examined against a white ground the bronchitic sputum appears yellow, whereas the pneumonic sputum looks red, the difference being due to the albuminous nature of the latter sputum. If these to kinds of sputum are mixed distinct traces of yellow are visible. The method is useful for distinguishing between them.—*Times and Reg.*

STRYCHNINE AS AN ANTIDOTE TO CHLOROFORM POISONING.—Washburn, *Therap. Gaz.*, records a case of a patient who had swallowed two ounces of chloroform with suicidal intent, being found in the street in a condition of profound narcosis. His pupils were widely dilated and inactive. His respiration was so shallow as to be almost imperceptible, and he had the weak, irregular pulse of a dying man. One twentieth of a grain of strychnine was injected hypodermically, and artificial respiration applied, with the result that after a few minutes the whole aspect of the case changed, the respirations becoming deep and full, and the pulse also improved. After an hour another injection of 1-60 gr. of strychnine was given. Two hours after being called to the case the author was able to communicate with the patient, and to get him to confess the cause of his condition. Recovery was complete, the patient, however, passing through a severe attack of gastritis.

THE THERAPEUTICAL VIRTUES OE SANMETTO.—In just appreciation of the virtues of SANMETTO, I have to state that in several cases of prostatitis, atony of the urinary bladder, loss of semen and and sexual capacity, I have tried the preparation, and in every instance my patients have derived some benefit from its use. I shall continue to commend SANMETTO to my patients in the like afflictions, with perfect confidence.—LOUIS BAUER, M.D., M.R.C.S., Eng., Prof. of Surgery, etc. St. Louis College of Phys. and Surg.

RADICAL METHOD OF CURING CORNS BETWEEN THE TOES.—Dr. A. M. Phelps advises that in case of corns between the toes, which after ordinary treatment recur, the skin between the adjacent toes should be entirely removed and the toes brought together by a line of sutures and allowed to unite. The webbing of the toes is entirely unimportant.—*Medical Review.*

## APPENDICITIS—THE LATEST FAD.

Have you got the new disorder?
If you haven't, 'tis in order
To succumb to it at once without delay.
It is called appendicitis—
Very different from gastritis
Or the common trash diseases of the day.

It creates a happy frolic,
Something like a winter colic,
That has often jarred our inner organs some;
Only wrestles with the wealthy,
And otherwise most healthy—
Having got it, then you're nigh to kingdom come.

Midway down in your intestine,
Its interstices' infestin',
Is a little alley, blind and dark as night,
Leading off simply nowhere,
Catching all stray things that go there;
As a pocket it is clearly out of sight.

It is prone to stop and grapple
With the seed of grape or apple,
Or a soldier button swallowed with your pie.
Having levied on these chattels,
Then begin internal battles
That are apt to end in mansions in the sky.

Once located, never doubt it,
You would never be without it,
It's a fad among society that's gay;
Old heart failure and paresis
Have decamped and gone to pieces,
And dyspepsia has fallen by the way.

Then stand back there, diabetes;
For here comes appendicitis,
With a brood of minor troubles on the wing;
So, vermiform, here's hoping
You'll withstand all drastic dosing,
And earn the appellation, "Uncrowned King!"

—*The World, New York.*

# THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, JULY, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## THE ONTARIO MEDICAL COUNCIL.

The last session of the Medical Council, as at present constituted, has come and gone; all the members were present, including Sir Jas. Grant, whose political duties had hitherto largely interfered with his attendance. As was anticipated, no new legislation of an important or radical character was introduced; this is right, inasmuch as the incoming Council may, in some respects, differ from its predecessor. A few of the territorial representatives have announced their intention of retiring from the field; the redistribution of seats and addition of five affected by the recent amendments to the Medical Act, and the chances and changes that are inseparably a feature of all elections will, to some extent, alter the *personnel* of our next Council; therefore, considering the differences of opinion in the profession as evinced by the controversies of the past year or two, it is only fair to every medical man in the Province that on important questions his voice should figuratively be heard through the ballot box.

An offer having been made for the college property, the disposal of which is a main plank in the platform of the Council's critics, it resolved itself into a grave problem and received much consideration. The amount offered was in excess of the cost, and, while perhaps an inducement in the minds of some to sell, it was self evident proof that the acquisition of real estate was not a wild speculation. Toronto property, so those who know best say, is at rock bottom figures. Before next session it is not probable that we shall see depreciation. The mind of the profession as to the desirability of retrenchment in this respect can be ascertained only through the electorates' action at the polls; and, therefore, it was concluded to leave the matter for the present in abeyance.

Dr. Philip, in accordance with the usual custom, was advanced from the vice-presidency to the presidential chair, and showed such good judgment, that, although at times debate waxed hot, we are not aware of an instance in which his ruling was called in question. There was keen competition for the honor of the vice-presidency, which was secured by Dr. Harris, the representative of Trinity University.

The Registrar and Treasurer having discharged their duties satisfactorily were re-appointed.

From the prosecutor's report it is assuring to learn that a large number of charlatans have been dealt with by the law, and, in order to facilitate this work and stamp out these pests of society, it would be well for every medical man to recognize his individual responsibility in the way of furnishing information; by so doing he need incur no false opprobrium, for, unless he so desires, his name in connection with such affairs is never dragged into publicity.

The Discipline Committee reported upon the cases of three practitioners charged with unprofessional conduct; in each case the evidence sustained the indictment, two out of the three names were ordered to be erased from the register, and in the third case, for what appeared good reason, action was deferred. The feeling of the members seems to be that the leniency heretofore exercised has been taken advantage of, and that the time has now come when justice is more desirable than mercy.

From the Ontario Medical Association was received a resolution adopted in its recent meeting condemnatory of lodge and contract practice, and requesting the Council to construe it as *unprofessional*, and therefore to purge the profession of all engaged in it. The Council's power in this regard is limited in the statute by the phrase "*grossly unprofessional or infamous.*" To seek for further legislation giving increased prerogative would at the present juncture be perhaps injudicious and possibly would encounter the personal prejudice of a majority in the Legislature.

Although contract practice of any kind is strongly to be deprecated and against the best interests of the profession, the conclusion inevitably arrived at was that the remedy is in the hands of the various medical associations, and not within the jurisdiction of the governing body.

The agreement with the Ontario Journal Publishing Co., was, after animated discussion, renewed for another year, with which action we cannot agree. We leave aside the injustice done to other journals that have invariably striven for the benefit and elevation of the profession in Ontario, and view the matter on much broader grounds. To subsidize a journal with the proviso that it be supplied free is, in the eyes of many, nothing else than giving a retainer to an advocate. For some years verbatim reports of the Council proceedings have been supplied in the Annual Announcement, and rightly, for thereby interest is aroused and laudable criticism invited. The members of the Council are representative men, and it is to be inferred ready to vindicate their record.

We sincerely regret that the respected veteran of the Council, Dr. Fenwick, has gone over to the great majority, and we congratulate the Western University in having selected as his successor a gentleman so popular as Dr. Moorehouse.

## POTASSIUM PERMANGANATE.

Permanganate of potassium has recently been brought prominently before the profession as an antidote in cases of poisoning by morphia, and would seem, from experimental evidence, to be a most valuable addition to our resources, in the management of these cases.

It was found that if morphia and the permanganate were brought together in solution, the presence of morphia could no longer be demonstrated by chemical tests, and the solution might be swallowed with impunity, so far as any poisonous effects of morphia were concerned.

In November, 1892, a report appeared, of experiments made by Bokai, with phosphorus and permanganate of potassium. He found that phosphorus in the presence of the permanganate was converted into innocuous orthrophosphoric acid in the stomach, with the development of manganese chloride.

The experiments were made on dogs: all those treated recovering, those untreated died.

In March last, investigations made by J. Kossa *(Vratch)* on the use of this drug in poisoning by the cyanides, were recorded in the *Druggists' Circular and Chemical Gazette.*

Kossa found that rabbits were fatally affected in a few minutes by .01 gramme of potassium cyanide, but if, at the time of administration, .5 gramme of permanganate, dissolved in water, was administered, doses of cyanide up to .1 gramme failed to cause death.

Larger quantities (.2 grammes), however, proved fatal, although the action of the poison was much delayed. The same results were obtained when hydrocyanic acid was used.

It was suggested, therefore, that in poisoning by cyanides, one-half to one-third of a litre, of a three- to five-per-cent. solution of permanganate, be administered immediately.

While these various experiments are interesting, and the antagonism of the permanganate to these poisons can be demonstrated in the laboratory, it remains to be seen to what extent this drug will be useful after these poisons have been absorbed. Even if it should prove useless after the poison has passed into the blood, it will still be a most valuable means of preventing further absorption, particularly in the case of phosphorus, which causes so much local irritation and is so difficult of removal, owing to its insolubility.

Doubtless further experiments will be made, bearing on these points, but in the meantime it deserves a fair trial in these cases, and should have a place in our emergency equipments.

## ONTARIO MEDICAL ASSOCIATION.

The annual meeting of this Association, which took place last month, was in every sense of the term a success. The President, Dr. McFarlane, was an ideal presiding officer; the committees did their work thoroughly; the attendance of members was unusually large and all seemed to enjoy and appreciate the brief respite from the arduous duties of practice. The papers were, on the whole, probably above the average and were freely discussed. It has been charged in the past that the discussion of papers occupied too small a portion

the time of the Association, but the enforcing the very excellent rule of limiting the length of apers read has largely corrected this difficulty. he benefit to be derived from attendance at such eetings is due, not so much to the listening to arned essays, but to the free interchange of pinion and hints of practical value to the busy ractitioner.

As usual, a number of our American confrères ere present and contributed to the success of the ccasion.

It is much to be regretted that many practi-oners throughout the Province still fail to take art in the meetings of their Association. Cer-ainly it is time profitably and pleasantly spent, o interrupt thus briefly the routine and drudgery f professional work, to renew old friendships and o form new ones, and to aid or be aided by an nterchange of clinical experiences. Socially, verything passed off nicely, the luncheon ten-ered to the members by the Toronto brethren eing held in the cool and attractive Island club ouse of the Royal Canadian Yacht Club. The amera fiend was abroad and, as a result, we have ad forwarded to us a very excellent souvenir hotograph of the members.

---

Crotalus Horridus.—The homœopathic mate-ia medica has received something new, which would appear to us to be popularly known as fluid xtract of rattlesnake. If homœopathic principles e correct, this preparation should certainly com-nend itself as a specific for delirium tremens. The following appeared in the *Boston Med. and Surg. Journal*:—

The following description of the initial steps in he securing and preparing of the "mother tinc-ure of *Crotalus Horridus*" receives the sanction f two homœopathic medical journals. A box of wenty-four large rattlesnakes was received by a nuseum proprietor in Rochester. Having pro-vided a long hempen-cord, a bottle of ammonia nd some whisky, "to be prepared for an emer-gency," the owner, known as "Rattlesnake Pete," nfastened the lid of the box and, as a large snake darted out, seized it by the neck and carried it to a table, while the long lithe body coiled round his arm and the rattles were "singing away like grasshoppers."

Now comes the interesting part of the perform-ance. A piece of common window-glass was placed near the snake's open mouth, and the rattler struck his wicked-looking fangs, which were nearly an inch in length, against the glass, a thin stream of yellowish-looking liquid spurting upon it at each stroke. "Oh, he's full of it," said Pete. "There's poison enough right there to kill twenty men." While he spoke he walked toward the den, and giving the snake a quick twist, released him. The poison on the glass was absorbed with sugar of milk, scraped into a bottle and carefully sealed. The poison thus obtained is sent to certain Lon-don homœopathic physicians, who use it in their practice as a medicine for diphtheria and other diseases of a similar nature. The poison is supposed to be very valuable. The process just described was repeated with snake after snake, until all in the box were transferred to the den. After the first three or four were taken out, Pete plunged his hand among the mass of wrigglers with seeming impunity, dragging out his next victim with a quick but certain motion. "These fellows will give up their poison more readily to-morrow; they are a little sluggish on account of having been kept in such close quarters for the past forty-eight hours," said Pete, in response to the writer's query.

"Besides selling the poison, which I have told you about," added Pete, "when a snake dies, I try-out the fat of the reptile, and obtain from one and a-half to two ounces of a very penetrating oil, from a fair-sized snake. This oil is worth eight dollars per ounce, and is used as a specific for deafness."

The Migration of the Ovum to the Tube.—Lode, *Archiv. für Gynäkologie; Univ. Med. Mag.*, has investigated this interesting subject by a series of experiments upon guinea-pigs. In one experiment he injected fine coal particles into the peritoneal cavity. The animal was killed thirty-six hours afterwards and the coal particles were detected in both tubes. In a guinea-pig four months old, in which the sexual organs were not yet fully developed, the particles were found only in the fimbria. In another series of experiments he used the ova of the *ascaris lumbricoides*, as they were larger than the coal particles. The injections were made

in the same way into the peritoneal cavity. The examinations of the guinea-pigs killed within a variable period of between thirty-six hours to seven days showed the presence of the ova in large numbers in about the middle portion of the tubes. In a few instances the ova had become glued together, forming a round mass fully the size of the natural ovum of the guinea-pig. This was found in the same situation in the tubal canal. The author draws the following conclusions from his investigations :

1. The cilia of the tube of a guinea-pig have the power of setting into motion bodies the size of the ovum of the guinea-pig, providing that the animal has arrived at sexual maturity.

2. The tube is enabled to take up ova not only from the ovary, but also from the free peritoneal cavity. Hence the old theory may be discarded, that it is necessary for the tube to be applied to the ovary in order to engage the ovum within its canal. The theory of transmigration—that is, the passage of the ovum from one ovary to the tube on the opposite side—receives new proof by the foregoing experiments.

3. The migration of the ovum is independent of the menstrual period, as none of the animals experimented upon showed any signs of rut, either while alive or at the post-mortem.

4. The migration is not dependent upon coitus.

5. The ovum travels along the first part of the tube much more rapidly than along the remaining part of the tube.

Lode attributes but a small rôle in the propulsion of the ovum to the peristaltic movements of the tube.

ACUTE POISONING WITH THERAPEUTIC DOSES OF CREOSOTE.—One frequently hears of patients taking very large doses of creosote without any untoward effects, but the following case reported by Dr. Zawadzski in the *Centralblatt für innere Medicin*, of May 5th, will perhaps make us a little more cautious in the use of this drug :—

A woman 42 years old was ordered creosote in doses of six drops three times a day, in milk. After she had taken three doses symptoms of poisoning showed themselves, including those of high irritation of the gastro-intestinal canal, anæsthesia, and partial paralysis of the soft palate and of the vocal bands, persistent burning in the mucous membrane of the mouth and pharyn albuminuria, signs of weakness of the heart, a especially exhalation of the odor of creosote fro the mouth. Death took place in the course four days, and the author thinks it was owing an idiosyncrasy that made the patient abnormall sensitive to creosote. He expresses the opini that we should avoid using creosote pure or strong solutions, and especially that creosot should not be ordered to be taken in milk, sin it is insoluble in milk and, when so prescribe acts as if it were undiluted. Moreover, he think that not more than one or two drops at a do should be ordered to begin with, and that th dose should be increased gradually.

RETENTION OF GUM ELASTIC BOUGIE MOR THAN ELEVEN MONTHS IN THE UTERUS.—Th following most interesting case was reported i the June 2nd number of the *British Medica Journal*, by Alfred Sykes-Ward, M.D. O October 15th, 1893, Miss H. consulted me abou a sinus, situated over the sacrum, which had bee discharging for six months. I arranged to giv ether, and lay the sinus freely open and scrap the cavity, which at the time of the operation wa found to lead down to the bone. The day afte operation my attention was called by the patien to a purulent discharge which came from th vagina. On examination I felt a foreign body part of which was in the vagina and the remainde in the uterus. The vaginal portion was ben round, and rested on the posterior wall. Wit considerable difficulty it was removed by th finger, and found to be a piece of gum elasti bougie measuring 5½ ins. There was no evidenc of perimetritic inflammation or implication o neighboring viscera. On questioning the patient she admitted that it had been inserted by women who is now undergoing penal servitud for procuring abortion in another case. Th bougie was inserted on November 3rd, 1892. Sh miscarried two days later, and had suffered fro pain in the back and purulent discharge from th vagina from that time up to April, 1893, whe the sinus began to discharge. After the remova the patient did well, and was able to return to he occupation in a fortnight. The points which seem to me to be noteworthy are, first, the retention o the bougie after the miscarriage had taken place

condly, the comparatively slight mischief that sulted from the long residence of the bougie.

SCARLET RASH AFTER ENEMATA.—C. W. Suckng, M. D., reports cases of this nature in the *ritish Med. Jour.*, as follows: The occasional currence of a bright scarlet rash after injections warm water into the bowel should be borne in ind. The rash appears in about two hours after e injection, and lasts about twenty-four hours. covers the whole of the body and limbs, and is pecially marked on the face. In rare cases it is companied with sore throat and slight fever. he rash is almost exactly like that of scarlet ver, and may easily be diagnosed as such, pecially if a sore throat is also present. It curs more commonly in children than in adults, id is occasionally distinctly urticarial. It is due toxæmia caused by absorption of fæcal matter quefied by the injection of a large quantity of arm fluid into the rectum. In all cases of supsed scarlet fever it will be well to exclude the ossibility of the rash being due to an aperient nema.

I have lately met with two well-marked illustrations of this toxæmic rash. Case 1 was that f my own son, aged 11. I was told that a scarlet ash had come out on him. I found that he was overed with a bright scarlet rash, but there was o sore throat, no fever, and no increase in the ulse rate. A soap and water enema had been sed about two hours before the rash was noticed. could not diagnose the case until thinking it ver I remembered making a note on rashes fter enemata. On reference, I find the note was nade from a very interesting paper by Dr. Burord, on "A Mild Form of Septic Toxæmia Occurring after Enemata." The rash disappeared n about twenty-four hours, and the boy was quite vell. Case 2 I met with at the Queen's Hospital. A little girl was to be operated upon, but just before the operation a scarlet rash was observed on the child, and I was asked to see her. On nquiry I found that a soap and water enema had been used that morning. There was no sore throat or fever, and the rash shortly disappeared.

PALPATION OF THE VERMIFORM APPENDIX.—George M. Edebohls, M.D., of New York City, advises, *International Med. Magazine*, that palpation of the vermiform appendix be practised by the fingers of one hand only. These fingers must carry the anterior abdominal wall down before them until the firm resistance of the posterior abdominal wall is encountered. As the fingers, flatly applied, now pass over the right inguinal region from the umbilicus outward to the right anterior superior spine of the ilium, it is absolutely essential that the posterior abdominal wall be distinctly felt along the whole route traversed.. As the organs, and among them the vermiform appendix pass in review, as it were, by gliding in succession between the fingers and the posterior abdominal wall, the touch soon learns to distinguish between them, and to recognize the appendix. After the appendix is detected, it is well to pass the finger over it, backward and forward, a number of times in succession; a more correct impression of its size, outline, etc., is thus obtained. The patient's position is dorsal, with the legs flexed upon the thighs, and the thighs upon the abdomen, so that complete relaxation of the abdominal walls is secured. The author considers the iliac arteries as helpful, because their pulsation indicates the posterior abdominal wall, and because the normal appendix is very constantly found about a finger's breadth outside of the artery. He also considers the McBurney point as indicating the origin of the appendix, and says that in most cases the appendix vermiformis may be palpated in health with ease and with about equal facility in the two sexes. In one of the cases reported the patient was so obese that the appendix could not be felt.

SECONDARY FEVER IN SCARLATINA WITHOUT LOCAL COMPLICATIONS.—Dr. E. Wearne Clarke, *Quarterly Medical Journal for Yorkshire and Adjoining Conntics; N. Y. Med. Jour.*; relates the following interesting case of a little girl, seven years old, who was attacked with scarlet fever of moderate severity presenting at the outset the ordinary features. The temperature rose rapidly to 104-2°, the rash was generalized and tolerably profuse, and the sore throat was of very moderate intensity. There was a certain amount of mild delirium at night. The rash began to fade on the fourth day of observation and simultaneously the temperature fell to 100-8°. Two days later it r again rapidly to 102-8°, and remained elevated for

ten days, ranging between 100° and 101° in the morning and between 102° and 102-8° in the evening most of that time, the maximum being usually attained at or soon after six o'clock in the afternoon. On the seventh day of this renewed fever, at 5.55 p. m., when the temperature was 101-8° and apparently tending toward the usual evening rise, five grains of antipyrine were given and a little later a cold pack was administered. At ten o'clock the temperature was 100-8° and at four o'clock in the morning it was 92-2°. By 1.15 p.m., however, it had risen to 101°, and at 6 p. m. it was 100-8°. The next morning it was 99-4°, and rose to 100-8° in the evening. A like rise occurred on the following evening, and after that there was a fall to 98°, with never again any elevation. All this time desquamation was proceeding rapidly, and no local complication that could account for the rise of temperature was observed. In spite of the fever, the child's general condition was good; the urine was abundant throughout and contained no albumin. The subsequent progress of the case was favorable. Dr. Clarke is inclined to think, with Bouveret, that in such cases the continuance of fever is due to the action of a toxine of scarlatinal origin, probably producing a disturbance of the nervous centers.

IS CANCER CONTAGIOUS?—W. Roger Williams writes on this subject in the *British Medical Journal* of May 26th, as follows:

As an example of the alleged epidemic occurrence of cancer, Fiessinger has adduced the following group of cases: In a certain village a woman died of cancer of the breast, and within a comparatively short space of time two other women, lodging in the same house, died also of cancer—one of the rectum, and the other of the vulva. After a certain time two neighbors also died, one of cancer of the stomach, the other of sarcoma of the leg. On the strength of some exceptional coincidences of this kind, without any other requisite data, the exaggerated conclusion has been drawn that cancer is an epidemic disease, and such groups of cases have been styled cancer epidemics. If the alleged epidemiology of cancer has no surer foundation than this to rest on, the less said about it the better. It will be time enough to entertain such surmises when the cancer microbe has been discovered. What to my mind completely negatives these assertions is the significant fact that in the crowded cancer wards of the Middlesex Hospital during the last twenty years, not a single instance is known in which sister, probationer, nurse, ward servant, surgeon, student, or any one engaged in attendance on the cancer patients, has ever subsequently developed the disease.

The question of the prevalence of cancer in Normandy has lately been investigated by a committee of thirty-five local practitioners, and their conclusion is, that although the disease is undoubtedly unduly prevalent in certain remote hamlets—probably in consequence of heredity—yet when the whole of Normandy is taken into consideration, cancer is no more prevalent there than elsewhere in France.

In this connection we ought to bear in mind that many other diseases besides cancer—deaf-mutism for instance—present similar geographical and topographical variations.

LIGHTNING AND THE TELEPHONE.—Robinson, *Annals of Opth. and Otol.*, January, 1893, reports a case of functional deafness and destruction of the membrana tympani caused by an electric shock while using the telephone as follows: A man, aged forty-five years, had the receiver of a telephone to his ear when a flash of lightning appeared, and he fell unconscious to the floor, remaining so four minutes. On regaining consciousness he had very severe pain in the left ear and left face, left breast, arm, and leg. The intensity of the pain diminished in four hours. The senses of taste and smell were impaired. Field and acuity of vision normal. The left membrana tympani was almost totally destroyed, the edges of the remainder being ragged, uneven, and congested. There was no discharge, but the mucous membrane of the middle ear was swollen. Hearing for the watch = 0. A C tuning fork was heard half an inch by aerial, and less well by bone conduction. Two months later he began to regain his hearing, and the membrana tympani was being rapidly restored. Thirteen months after the accident the condition of the ear was almost entirely normal.

STERILIZATION OF HYPODERMIC SOLUTIONS.—D. Marinucci, *Druggists Cir. and Chem. Gaz.*,

has found large numbers of living germs, some of a harmful nature, in freshly-prepared hypodermic solutions of strychnine sulphate, morphine hydrochlorate, atropine sulphate, eserine, etc. Sterilization by heat did not affect the therapeutic value of strychnine and quinine, but partly checked the action of morphine and atropine. Eserine and atropine solutions are said to be best prepared with a solution of corrosive sublimate (1 in 1000), which renders them aseptic without modifying their therapeutic properties. It is suggested that all such solutions should be renewed every fourteen days.

Home Made Beef Powder.—Dr. Wm. R. Huggard, *Davos. Platz. Switz.*, gives the following method of preparing this useful article: Most, if not all, of the beef powders in the market smell and taste of the chemist's shop, and are not readily taken by an invalid whose palate requires to be coaxed. A happy idea struck me several months ago that beef powder might without difficulty be prepared fresh and on a small scale by any ordinary cook. The experiment was made, and the result was satisfactory beyond expectation. Beef powder made at home is appetizing, has a delicate aroma and flavor, and can be taken with pleasure by invalids who turn with aversion from ordinary food. If a little pepsin be taken at the same time, it is digested even when the ordinary peptonized foods are not retained. The mode of preparation is simple. Lean beef is cut into small pieces; these are put into boiling fat, dripping, or butter for a couple of minutes until the surface is browned. They are then removed from the fat and placed on a strainer for a few moments. Afterwards they are placed in a mincing machine. The resulting mince is placed in a slow oven and dried. The drying process may take from five to twenty-four hours, or even longer, according to the heat employed. When thoroughly dried, the meat is quite crisp, and can be ground in a coffee mill that has not been used for any other purpose. In the drying process the meat loses a trifle more than four-fifths of its weight. This beef powder can be taken in various ways; with hot water or soup, with mashed potatoes, with bread and butter in a sandwich, or with a little pepsin in a starch water. I have given this home-made beef powder with such excellent effect in several cases where there was much difficulty with food that I think my professional brethren may also find it useful.

In the Treatment of Lithæmia, according to Dr. Da Costa, *N.Y. Med. Record*, the main factor is regulation of the diet. The food ought to be mainly vegetable. Green vegetables (especially asparagus), fresh fruits, stale or toasted bread, white meat of poultry and fish, should constitute the chief items. An excess of carbohydrates, especially sugar, should be avoided. The only drink to be allowed is water, and sufficient quantities should be taken to flush the kidneys. Mineral waters may be ordered to accomplish the same purpose. Alcohol should be positively excluded. Exercise in the open air is also an important part of the treatment. But little drug treatment is required. Saline laxatives are very useful. A combination of lithium carbonate (2 gr.), with extract of nux vomica ($\frac{1}{6}$ gr.), given after meals is of special value. In attacks of lithæmic migraine a few doses of a mineral acid, it is claimed, will often cause the symptoms to disappear. Other authorities advise a diametrically opposite diet to that cited above.

Permanent Mounts of Urinary Deposits.—Von Frisch states, *Atlanta Med. and Surg. Jour.*, that by the following method he is able to mount and preserve, microscopically, specimens of urinary deposits which have kept well for three years. The medium he employs is a glycerin jelly of one part of gelatin, four parts of glycerin, and two parts of distilled water. A drop of the deposit is placed on the glass cover and partially dried, a drop of the gelatin solution is placed on a warm slide, and the cover glass with the deposit carefully placed over it. The method is equally available for crystalline or organized sediments; for the latter, however, the author recommends that the gelatin should be colored with fuschin, when the organized elements are gradually stained by the dye.

Electrical Treatment of Obesity.—*Brit. Med. Jour.* Imbert de la Touche has obtained favorable results from electrical treatment in certain cases of obesity in which the symptom had developed as part of a general disorder of nutrition, or neurasthenic state in women. Regulation

of the diet, as usually prescribed for the diminution of stoutness, made the patients worse. Five cases are reported. The method employed was by insulation and the statical charge, daily or three times a week. Excellent results followed, in every case the symptoms of debility disappeared, the abnormal stoutness disappearing also. The author writes enthusiastically of the efficacy of this mode of treatment.

THE TREATMENT OF LEAD POISONING WITH MONOSULPHITE OF SODIUM. — The following appeared in the *N. Y. Med. Record*:—M. Perou states that the administration of 40 centigrammes a day of monosulphite of sodium gives rapid relief in lead colic. He states that the elimination of the metal is much hastened by this treatment, and that the sulphite is an efficient prophylactic agent. The employment of the drug is, he says, devoid of danger.

THE EXPERIMENTAL PRODUCTION OF MONSTROSITIES.—The *Gazette Médicale de Paris* for May 5th stated that, at a recent meeting of the *Société de Biologie*, M. Féré reported that by injecting various microbic toxines into the whites of hens' eggs in process of incubation, he had succeeded in producing monstrosities in 58.33 per cent. of the eggs, while in eggs not interfered with the percentage was only four.

CLEMEN'S SOLUTION.—The following, *N. Y. Med. Record*, is the mode of preparation of the liquor arsenici bromatus used in the treatment of diabetes mellitus: Carbomate of potassium and arsenous acid, each one drachm; distilled water, ten ounces; boil until a clear solution is formed, and when cold add bromine, two drachms, and water twelve ounces. This is allowed to stand until the color disappears, when it is ready for use. The dose is from one to five drops once or twice a day.

THE DOSE OF EXALGINE.—At, *N. Y. Med. Journal*, a recent meeting of the Paris *Académie de Médecine*, reported in the *Mercredi médical*, M. Dujardin-Beaumetz stated in reply to a question that great prudence should be exercised in the administration of exalgine, and that it was quite wise to give it in divided doses, each dose not exceeding four grains.

PERSONAL. — Drs. J. L. Davison, W. Britton, A. McPhedran and Gerald O'Reilly sailed, per steamer Oregon, a few days ago, for the old country, where they will spend the summer months. They intend combining business with pleasure, and will, we trust, return in the fall, with the best of health and all the latest ideas of interest and practical use to the profession.

THE PECUNIARY LOSS FROM PHTHISIS alone, for every million children born, is estimated to be £14,499.40.

## Books and Pamphlets.

ESSENTIALS OF NERVOUS DISEASES AND INSANITY: their Symptoms and Treatment. A Manual for Students and Practitioners. By John C. Shaw, M.D., Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School, etc. Second Edition, revised. Forty-eight origina illustrations, mostly selected from the author's private practice. Philadelphia: W. B. Saunders, 1894. Pp. x-17.

A first rate little work for the student to use in conjunction with his clinical work.

ESSENTIALS OF PRACTICE OF PHARMACY. Arranged in the form of questions and answers, prepared specially for pharmaceutical students. Second edition, revised by Lucius C. Sayre, Ph.G., Professor of Pharmacy and Materia Medica, University of Kansas. Philadelphia: W. P. Saunders, 1894. Price $1.00.

Invaluable to students preparing for examination.

A MANUAL OF THERAPEUTICS. By A. A. Stevens, A.M., M.D. Philadelphia: W. B. Saunders.

This book of 435 pages has been specially prepared for students in modern therapeutics. It is not intended as exhaustive, but is an excellent epitome of the subject as considered in the light of its modern development, and will undoubtedly be of use to the busy practitioner as well. The article on "Incompatability in Prescriptions," is especially timely and useful. The "Table of Doses," with which it concludes, is a commendable innovation.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

## Original Communications.

### ATROPHIC RHINITIS.*

BY PRICE-BROWN, M.D., TORONTO.

In selecting Atrophic Rhinitis as the subject of my paper, I was guided not only by the importance of the subject itself, but also by the fact that so little attention, as a rule, is paid to it by the general practitioner. Sufferers themselves, likewise, often ignore it, and remain practically without treatment until it has reached a stage in its development, when cure in any real sense has become impossible; and when the most that can be accomplished is arrest of progress, with relief of the most urgent symptoms.

This is the disease which, beyond all others, has for generations been known by the name catarrh, as significant of nasal discharge, accompanied by foul odor. It is needless to say, however, that catarrh is not a disease, but merely a symptom; and even as a symptom it differs widely both in character and degree, according to the pathological condition to which it owes its origin.

Among the many definitions of atrophic rhinitis which are given by leading authors upon the subject, no one, I believe, is so terse and comprehensive as that recently advanced by Wyatt Wingrave who says that :—

"It may be defined as a progressive and persistent form of dry rhinitis, characterized by a shrinkage of the mucous membrane, which tends to invade contiguous chambers, and is accompanied by the formation of crusts with more or less fetor of a special character."

Of all the names, such as ozena, fetid coryza, dry catarrh, cirrhotic rhinitis, or the most recent one, atrophic ethmoiditis, suggested by Woakes, none is so suitable I think, as the one which is the title of this paper; rhinitis being the term invariably applied to inflammation of the mucous membrane of the nose; and atrophica being significant of shrinkage of normal tissue wherever found.

The histological observations of Lennox Browne, and Bosworth, and Wingrave, more particularly the latter, open up a wide field for thoughtful study. The results of the recent microscopical examinations are summarized by Wingrave as exhibiting the following changes iu every well marked case of atrophic rhinitis.

1. Transformation of the columnar ciliated and special olfactory cells into stratified squamous epithelium.
2. Disappearance of the hyaloid basement membrane.
3. The presence of special hyaloid bodies and pigment masses (first brought to the notice of the profession by Burnett).
4. Changes in the glands.
5. Changes in the lymphoid tissue and blood-vessels.
6. Changes in the bone.

Apart from the shrinkage which takes place in the various layers and in all the constituents of the nasal mucous membrane in this disease, perhaps the most striking features are the changes of the surface epithelium on the one hand, and the rapidly increasing number of hyaloid bodies on the other.

In the normal state the mucous membrane of the inferior turbinated bones, the lower half of the middle turbinals, and the lower two-thirds of the septum, is covered with ciliated epithelium, the special object of the cilia being to propel the serous and mucous discharges of the nose toward the anterior and posterior choanæ; and thus prevent their accumulation within the nasal cavities. In the atrophic condition, however, these cilia are gradually, and when the disease becomes severe, permanently destroyed — their place being taken by a layer of flat squamous epithelial cells in a state of constant desquamation. Below this we have stratified cuboidal epithelium in several layers; and then the adenoid-or hyaloid layer beneath, with shrunken blood-vessels and acenous glands and cavernous sinuses almost obliterated. So that in place of a dozen square inches of the ever moving velvety cilia, we have a flattened

* Read before the Ontario Med. Assoc., June. 1894.

smooth surface, deficient in blood supply and clinging closely to the irregularities of the spongy bones.

About the hyaloid bodies, their distinguishing feature is the fact that, although the entire turbinated cushions shrink continually in direct relation to the progress of the disease, these hyaloid bodies increase in numbers as the disease advances. Wingrave describes them as small, round, refractive, homogenous masses embedded in the interlobular tissues of the glands, in the adjacent lymphoid tissue and sometimes in the stratified epithelium. Their size varies from the 2000th to the 800th of an inch. Latterly they break up into minute refractile bodies resembling spores. The question of the nature of these is still *sub judice.* Some pathologists believe them to be the parasites of atrophic rhinitis.

As I said before, the rest of the changes in the mucous membrane and turbinated bones are those of constant contraction, permanent shrinkage. The adenoid or hyaloid membrane which, in hypertrophic rhinitis remains intact or increases in dimensions, in this disease shrinks gradually out of existence.

The gland follicles become crowded with lymph corpuscles of a low inflammatory type, blocking their lumen, often producing complete disorganization of the acini without ever developing into true hyperplasia. The capillary blood-vessels disappear. The cavernous sinuses become less and less distended. A general fibrosis contracts the vessels, and finally they, too, shrink away, involving the underlying spongy bones in the common atrophy.

Incidental pathological changes occur in a majority of cases. Out of sixty recorded, the faucial and pharyngeal tonsils had in fifty-six entirely disappeared; while in the remaining four they were small, thus indicating a peculiar relationship between the surrounding lymphoid structures and the atrophic disease.

Perforation of the cartilaginous septum is also of not very infrequent occurrence. It is, however, generally believed to be not so much the direct result of the atrophic disease as of digital picking, the region being so easily accessible to the finger. In my own experience I do not remember a single case of perforated septum co-existant with atrophy, in which I could not trace the origin of the perforation to the period of childhood. When it comes under the notice of the physician the margin of the perforation will usually be found coated with tenacious mucus, overlying a layer of proliferated epithelium. Very rarely will there be any indication of recent ulceration.

*Etiology.*—Perhaps there are few subjects in medical science upon which there exist so many differences of opinion, as upon the origin of atrophic rhinitis. Bosworth, as is well-known, makes the statement that purulent rhinitis, "he believes to be in every case a cause of, or the primary stage of, the atrophic form." There are few, if any, other writers who support him in this extreme view, while many, if not all, believe that it may sometimes be the cause. The more general opinion among the profession is that it usually occurs as a sequel to hypertrophic disease. J. N. Mackenzie goes so far as to affirm that: "Atrophy appears to be always a secondary affection . . . resulting from previous inflammatory thickening." Seiler while acknowledging that it frequently results from hypertrophy, also says that: "It may be of the atrophic variety from the start." Drake claims chronic purulent inflammation of the accessory sinuses as the cause. Gottstein holds that defective development of the turbinated bones is responsible for the disease. And Sajous, while accepting some of the causes already named, very justly says that an unusually dry atmosphere, the inhalation of tobacco smoke, or an abnormal patency of one or both nasal chambers, may any of them be the proximate cause of atrophic disease. Added to all these, as well as the parasitic origin already mentioned, Mayo Collier has recently thrown out the plausible suggestion that it may yet be discovered: "That the initial disease was degeneration of the nerve ganglion and nerve fibres supplying the parts.

Personally I have seen a number of cases which I could trace back to purulent rhinitis of childhood; others, where I had reason to believe that the atrophy was a sequel to hypertrophy; several, in which a certain amount of hypertrophy in one nostril accompanied atrophy in the other; and more than one in which the breathing of a dry atmosphere was the presumptive cause.

Usually when patients have presented themselves for treatment, they have already been

sufferers for years; but from the histories I have so far been able to obtain, I believe many cases occur from neglected colds, particularly when associated with deviated septum. In these cases mild hypertrophy is the result, producing stenosis and accumulation of mucus, which by its constant presence produces a certain amount of pressure upon the posterior ends of the middle and inferior turbinateds. This compression at any one time may be small; yet we must remember that these subacute attacks of rhinitis often last for many weeks; and that one cold follows another for a long time before the parts affected are submitted to thorough examination and the result ascertained.

One reason why I believe that many cases arise in this way, is the fact that in so many instances the atrophic condition is most marked in the deeper portions of the nasal cavities; that is over the posterior ends of the turbinateds; while in front we have still existing the septal deviation.

The period when atrophic rhinitis usually comes under observation is that of early adult life, say between 15 and 30 years. 44 out of Wingrave's 60 cases occurred during that period. He also gives a remarkable disproportion in the sexes, 49 females to 11 males. In my own case book I find a record of 17 cases, 9 of whom were females, to 8 males.

The symptoms of this disease are very characteristic and too well-known to require a close delineation. They consist of dryness of nose and throat, more particularly the throat; and this quite frequently when the patient can breathe without difficulty through the nose. The shrinkage of the tissues makes the cavities wider, permitting the accumulation of mucus, and nasal breathing at the same time. The normal serous discharge, designed by nature for the saturation of the air of respiration, becomes limited, and finally disappears, leaving the air dry and foul by the time it reaches the throat. With the diminution of serous fluid, there is increase of mucus, which, mixing with the increased exfoliation of epithelial cells, clogs up the nasal passages, finally encrusting the parts. The widened cavity in its turn makes forcible expulsion of the deposits by the breath impossible; and the consequent retention produces the characteristic fetor. The intensity of this fetor varies according to the severity of the disease and the length of time it has existed. In long standing cases, anosmia is of frequent occurrence; while in a large number the sense of taste is likewise impaired. As before mentioned the faucial and pharyngeal tonsils usually become atrophied, the contiguous sinuses and antra may be involved, and even the eustachian tubes may become victims to the disease.

In speaking of the origin of the peculiar fetor, Wingrave offers a new theory. He tells us that as the normal mucus membrane is a transformed epidermal structure, having with its glands a common origin with the skin, so in atrophic rhinitis, we have a structural reversion in the stratification of the surface epithelium to the primitive type; and in the glands we have established a perverted function. The mucus membrane is converted into cutaneous structure with a corresponding change in secretion. Following out his argument, he speaks of the various odors produced by different portions of the skin, such as the feet, the axilla, the prepuce, etc.; and granting the cutaneous change produced by atrophic disease, we have an odor established within the nasal cavity—having a kinship with all the others.

*Diagnosis.*—Except in its earliest stages, it can rarely be mistaken for any other disease. A careful and thorough examination should always definitely place it *per se.*

*Prognosis.*—Most writers agree that at the best the prognosis in atrophic rhinitis is a very doubtful quantity. Excluding, of course, malignant and specific diseases, it is more hopeless than any other affection of the nasal organs—that is, so far as complete and permanent recovery are concerned. Frankel, of Berlin, says:—"A cured ozena is unknown to me." Bosworth says:—"In the advanced stages, characterized by fetor, and in which the turbinated bones have almost entirely disappeared, I have not seen a case cured." Sajous says:—"Atrophic rhinitis is perhaps the most unsatisfactory of the nasal affections to treat successfully."

All agree, however, that much can be done to ameliorate the symptoms and make life comfortable; and I believe when taken early, and the treatment carried out persistently and faithfully, a cure in some cases can be accomplished; while in the more severe cases, freedom from crusts can be insured, fetor can be kept under control, and

the general health and comfort of the patient can be vastly improved.

*Treatment.*—The initial step is always to thoroughly cleanse the nasal and naso-pharyngeal cavities. That is, to remove completely all incrustations wherever found. It matters little how this is accomplished, or what local agents are used, so long as the mucus membrane remains unbroken and the eustachian tubes uninjured. The drugs used are legion, and the methods many. Among the best, however, are simple alkaline and antiseptic solutions, such as Dobell's. The alkali has a solent action upon mucus, while the carbolic acid has a tendency to neutralize the decomposition going on. This, or any similar fluid, may be used by the post-nasal spray syringe. The point of the instrument, being passed up behind the soft palate, the solution is thrown through the nasal cavities with considerable force. At the same time it loosens the accumulations which so frequently form in the vault of the pharynx. We should always be careful to have our solutions at a blood temperature, and should also fill the instrument a number of times at each sitting.

The method of using the nasal douche, and recommending the patient to pass one or two quarts of hot medicated water through the nose, up one nostril and down the other, is advised by some rhinologists. Bosworth, in his recent edition, tells us that our patients should be instructed to follow this plan out daily. There are unbelievers, however, and I am one of them. With such oft-repeated and copious irrigations, there is always the well recognized danger of frequent floodings of the eustachian tubes. If we flood the tubes we flood the middle ear likewise; and run the serious risk of inflammatory action, and subsequent deafness. Of course, if the patient while using the douche, assumes the right posture, with the head bent forward, and takes the precaution to elevate the palate, and so force the fluid round the septum and out through the other naris, without entering the post-nasal pharynx at all, then the eustactian tubes escape. But granting this to be fully accomplished, the entire object of cleansing has not by any means been secured. The tenacious plugs of foul mucus in the pharyngeal vault have not been touched, much less removed. Hence I believe that this dangerous and ineffectual method of cleansing, should only be used under exceptional circumstances, in cases under the direct control of the experienced physician.

The anterior nasal spray, however, produced by compressed air on a good hand atomizer, is a valuable adjunct to the post-nasal treatment; but in the majority of instances the two combined are not sufficient to thoroughly cleanse the parts from crusts. They remove a large portion of the accumulations and loosen other parts; but some they have comparatively little effect upon. The work to be completed requires the use of the cotton probe by the anterior nares, and the curved cotton holder to the pharyngeal vault. In first treatments, especially, this should be done in a painstaking and thorough manner; and always by the aid of anterior and posterior rhinoscopy with a good reflected light.

This first step having been accomplished, it is generally conceded that the next one is to stimulate the atrophic membrane to a better performance of its natural function of secretion.

To this end Gottstein recommends plugging the nostrils for twenty-four hours with cotton tampons. This entails a good deal of discomfort to the patient for that period; but on their removal a flow of mucous follows as a result of the pressure stimulation. When the flow subsides, the nasal cavities are cleansed again and fresh tampons inserted. The whole procedure being repeated as frequently and for as long a period as required.

Woakes uses Gottstein's plugs for the purpose of applying powders of a stimulating character to the diseased mucous membrane.

Sajous and MacKenzie advise the use of the galvano-cautery at a white heat passed rapidly over the surfaces.

Lennox Browne also favors the same plan with subsequent insufflations of iodol or iodoform.

Bosworth recommends its use with great caution, as a disease attended by constant contraction would hardly appear to call for much use of a destructive agent. He says, however, that when applied so lightly as to be merely stimulant in its action, a good result is sometimes accomplished by it.

Shurly and Bryson Delaven recommend the galvanic current as a valuable means of treatment —the positive electrode being applied to the nape of the neck, while the negative, wrapped in absorbent cotton, is passed over the mucous membrane.

The strength of the current from 4 to 7 milliamperes, and the time from 6 to 15 minutes. The seance should at first be daily; subsequently on alternate days.

Other methods of treatment are the use of stimulating sprays after cleansing, such as those of thymol, creosote, sol. arg. nit., etc., of varying strength and frequency, according to the indications attending each distinctive case.

I cannot close this branch of the subject without briefly referring to a new method of treatment, inaugurated during the last two or three years by the Italian school of rhinologists. It consists, after thorough cleansing of the nasal passages, in vibratory massage of the mucous membrane. Braun, of Trieste, was the originator of the plan, and he claims to have met with very marked success in the treatment of a large number of cases. It was discussed quite exhaustively at the Laryngological Section of the International Medical Congress at Rome a few weeks ago, and was endorsed by a number of enthusiastic supporters. Still it has its opponents, among whom was Prof. Chiari, of Vienna, who said he "had never seen any better results from this treatment than from ordinary painting of the throat." So far, this method of treatment does not seem to have obtained any foothold either in England or America, although if successful on the Continent it will soon, no doubt, be used by the English speaking peoples.

The massage is produced by an olive pointed probe, wrapped in cotton wool, and passed into the nostril to the various points requiring treatment. The instrument is held between the thumb and fingers like a pen, and the vibrations are produced by the tetanic contractions of the muscles of the arm and forearm of the operator, as he presses the point of the probe against the mucous membrane he is operating upon. By practice, these contractions are said to number about 400 per minute.

The mucous membrane of the nose covers about 40 square centimetres, and the space operated upon will be about one square centimetre at a time. Braun says he makes the time for each vibratory application anywhere from a quarter of a second to a minute, and the whole period of treatment about five minutes to each nostril. Of course, the earlier treatments are preceded by the application of a sol. of cocaine.

As might be expected, the treatment, however beneficial to the patient, is both difficult and fatiguing to the operator—the latter particularly, as in each case it has to be practised regularly a large number of times. To overcome this difficulty, and at the same time to make the system of vibration more regular and rapid, various electromotive instruments have been made, from which their originators claim to have produced even better results than by manual vibration.

As this method of treatment appears to be plausible, I have commenced to try it on two cases, but they are both too recent to bear reporting upon.

On looking over the history of my own cases, I find that my treatment has gradually undergone a change as the result of personal experience, becoming more thorough in its manipulation, and, at the same time, more mild in character, than it was during the earlier years of practice.

With the post nasal syringe, the anterior nasal spray the cotton holder soaked in albolene, and the post nasal curved cotton probe saturated with the like fluid, I usually succeed, at the first sitting, in thoroughly cleansing the nasal cavities and the post pharyngeal vault. This use of the cotton holders requires, of course, the use of the anterior and posterior rhinoscopes. Although this preliminary treatment necessitates both care and patience, yet it is comparatively painless and is almost always bloodless. Even when the green offensive incrustation is thick and putrid, we rarely meet with any ulceration; and often, while the contracted mucus membrane clings closely to the irregularities of the shrunken turbinateds, its surface with all the irritation of cleansing, remains still unbroken.

Sometimes after removing the incrustations as thoroughly as possible, I would find a thick layer of tenacious epithelium, projecting from the lower border of the middle or inferior turbinated bones, which would defy all efforts of ordinary cleansing. If this persisted through several treatments, severer measures would be required. Occasionally a solution of arg. nit. 10% would be sufficient; but I have usually found the best results from singeing the proliferations with the galvano-cautery. This cauterization was never carried to

the extent of destruction of the whole epithelial coating. As a result, the pale, bloodless, stringy epithelium would give place to a pinkish membrane of more healthful character.

One peculiarity of formation I have remarked in several instances; and in each case it was confined to the side affected by the more marked atrophy. This was the attachment by cicatrical band of the greater part of the inferior border of the middle turbinal, either to the upper part of the lower turbinal or the external wall of the middle meatus. These special instances seemed, in my mind, to owe their origin without doubt to a previous hypertrophic condition. In the treatment of these cases, I have under cor. separated the attachment by galvano-cautery with marked advantage to the progress of the case.

Formerly, after thorough cleansing of the nares and pharyngeal vault, I would use one of the many stimulating sprays so freely vaunted for the treatment of atrophic rhinitis. I cannot say, however, that my patients derived any perceptible advantage from their use. It always seemed to me, that the more you stimulated the shrunken, withered, pallid membrane, the less serum would be secreted, and the quicker would the surface dry. It must also be remembered that anything like successful treatment of atrophic rhinitis, is a matter requiring years of careful and systematic management; and that the daily application of stimulants for all this period could scarcely fail to have an injurious effect upon any mucus membrane.

For years now I have usually, as second treatment, applied nothing but the blandest of simple carbo-hydrates—one of the many refined petroleum extracts At first I used petrolene, and latterly as they came into the market, liquid albolene or glycolene or benzoinol. They are essentially bland and unirritating, soothing to the mucus membrane, and protective from atmospheric influences. The best means of applying them is by means of any good atomizer, capable of throwing an oil spray. In this matter atomizers differ materially. A large number of those in the market, while they will throw an aqueus solution with a satisfactory degree of atomization, have too small a bore to throw the hydro-carbous efficiently; and hence I find the best way to secure a good instrument is to test it with either albolene or glycolene before completing the purchase.

I may close with a few words relative to the results of my own personal treatment. In cases of recent origin, before shrinkage had developed to any great extent, the crustation being limited, and with little odor, treatment has sometimes been productive of permanently good results. The pallor of the mucous membrane would be replaced by the normal pink color, the crust deposit would cease and the odor likewise. This would be after office treatment, lasting over a number of weeks; but in each case the patient would follow out the same line of treatment at home for weeks or months afrerwards as required. The first case is an exception to this rule:—

CASE 1.—Nov., 1886, Mrs. B., wife of a blacksmith, æt. 65 yrs., was referred to me by her physician for treatment. She had been suffering for several years from what she called "chronic catarrh" with "spitting of scabs." On examination I found offensive crusts in the posterior nares and naso-pharnyx with some pharyngitis sicca in post pharynx. After cleansing there was pallor of mucous membrane and some shrinkage of posterior ends and middle and inferior turbinateds. After a few weeks' treatment the tendency to crustation seemed to cease. The intervals between treatments became longer, and on last of January or ten weeks from first consultation, she came to the office for the last time. In her case I prescribed no home treatment, as I was under the impression that she would not carry it out successfully. My instructions were to return for a treatment whenever the catarrhal spmptoms gave her any trouble.

I did not hear of her again for more than four years and my impression was that the disease had probably returned and discouraged her about the efficacy of treatment. But in Mar., '94, she came back with laryngeal disease as a sequel of grippe which she had suffered from during the winter. I was glad to find the nose and naso-pharynx in a perfectly healthy condition. The woman said that she had never been troubled with her catarrh since I last saw her. Her present subacute laryngitis soon passed away.

CASE 2.—Aug., 1889, Miss W., æt. 22 yrs., was referred by her physician. I found a large perforation of the cartilaginous septum. The middle and posterior nasal cavities and vault of the pharynx were filled with foul greenish gray

crusts. The post pharynx was dry and covered in its upper portion with similar incrustations. The palate was soft, flabby and disorganized, and the patient suffered from an irritable laryngeal cough. She remained under treatment at that time for a month; and on returning home faithfully followed out the directions. Since then she has come to the city for treatment at my office for a few days once or twice a year; and each time I have noted material improvement. Crusts now never form. Dryness and odor rarely occur. The turbinated cushions are gradually filling up and the discharges are more serous in their character. The cleansing sprays are still used, but far less frequently than formerly; and the disease is so completely under control that the closest observer, without direct inspection, would fail to detect its presence. To crown all, she has been so well both in health and spirits for the last year, that she capped the climax by marrying a prominent Bachelor of Arts only a few months ago.

Case 3.—June, 1890, Miss L. C. æt. 14 yrs, was sent to me for treatment. She had a defininite history of purulent rhinitis extending back to infancy. There was no septal perforation; but the disease was of a severe character and the odor exceedingly offensive. She remained under treatment for a number of weeks and on returning home to a distant village, carried with her explicit instructions for home treatment. These she faithfully followed out.

Last fall she came to the city to attend college. On examination I found very great improvement, and I believe there is very fair prospect of ultimate recovery. One nasal passage has already resumed an apparently normal condition; and in the other, the turbinateds have lost much of their shrunken character. The chief difficulty was that she had not been able to thoroughly clear the pharyngeal vault. Since then I have had her use the post-nasal syringe. She can manage it very well, and will continue to use it as long as required.

Case 4.—June, 1890, P. McD., æt 20 yrs., was referred by his physician. History of purulent rhinitis from childhood. Toward adult age it had assumed the atrophic form, with foul breath, excessive crust formation and hoarseness. On examination, I found the characteristic nasal signs, but the usual atrophy of the faucial tonsils was not present. They were instead enlarged and spongy while the uvula was thick and long. The young man was strongly built and athletic. and in great measure followed an out door life.

Together with the regular nasal treatment, I removed a portion of the uvula and reduced the tonsils by several cautery operations. For a while he followed out the home treatment prescribed, but he desisted as symptoms abated, contenting himself with occasional visits to my office at long intervals. Latterly there has been no nasal crustation, the deposit being limited to the pharyngeal vault. This he says is expectorated about once a week and is gradually getting less. On last examination about a month ago, the crust was smaller than ever, and I have good reason to believe, that in another year or two, the post-nasal pharynx, like the nasal cavities, will be entirely free from mucus accumulations and the patient will be cured.

The few brief histories I have given are extracted from a record of seventeen cases in private practice, and are among the most successful that I have treated. I have purposely taken them from my earlier years of special work, as those of more recent date being only in their infancy of treatment, would be unreliable so far as prognosis is concerned. My main object in dwelling upon them is to prove that great benefit can be obtained by persevering painstaking treatment, carried out by the patient under the careful supervision of his physician. Atrophic rhinitis is one of the most loathesome and hopeless of diseases when allowed to take care of itself, and it is astonishingly prevalent; but thanks to the methods of treatment that medical science has placed at our disposal, it is in all instances capable of a definite measure of control. In a few cases, I believe, we are justified in expecting a permanent cure; and although in the majority, the outlook is less hopeful, yet there is no reason why sufferers should continue to be either a discomfort to themselves or a nuisance to others.

---

A young man has recently died at Shoreham from the effects of a mouthful of carbolic acid with which he rinsed his mouth in mistake for vinegar.

## GASTRECTASIS.

BY CHAS. G. STOCKTON, M.D.,

Professor of the Principles and Practice of Medicine, and Clinical Medicine, Medical Department, University of Buffalo.

For the sake of precision it is best to define exactly what is meant by the term gastrectasis.

By it is meant not merely a large stomach, for, as is well known, this organ may be found with a holding capacity of several pints without disturbance of secretion, sensation, motion, or absorption. Physiologically, the stomach is beyond criticism, but anatomically it is extravagant in size. Such are not instances of dilatation; their origin is sometimes surrounded in mystery, and the condition is called megalia.

Another condition is easily mistaken for gastrectasis, and that is a displacement of the stomach downward, or gastro-ptosis. This is often associated with wandering or movable kidney, and sometimes with Glenard's disease, or entero ptosis. The "oblique stomach" is also often mistaken for dilatation, with which it is often associated. True gastrectasis, or dilatation of the stomach, includes an increase, often progressive, in size, with hypertrophy, at other times with thinning of the muscle coats, and accompanied with more or less profound disturbance of the functions, and frequently by the stagnation of food and the almost invariable presence in excess of lactic acid, and sometimes of the fatty acids and the other products of fermentation.

Gastrectasis is often seen to be the direct result of pyloric or duodenal stenosis, but more often such is not the case. Of this latter class the cause is not always apparent. Undoubtedly it sometimes depends on obstruction, the result of traction that accompanies displacement of the right kidney, the intestines, or the stomach itself; an obstruction may be occasioned by abdominal tumors or old inflammatory tissue after peritonitis. However, there remains a large number of cases that occur without the association of any obstruction that can be made out by the most careful study before and after death.

These are believed to result from long-continued fault in innervation, leading to diminished muscle tone and consequent relaxation. In these cases the hypertrophy of the muscle coats probably never occurs, but in those cases that come about as direct result of stenosis there is usually at first muscle increase, and sometimes the gastric walls become so powerful that the movements of the stomach may be observed distinctly through the abdominal parietes, in the vain endeavor of the organ to empty itself. The mucous membrane may be intact. It is sometimes thinned, sometimes atrophied, and occasionally inflamed. In all cases the digestion is impaired, in some it is abolished; usually the food is tardy in leaving the stomach. In a few instances, when pyloric insufficiency exists, the contents are too rapidly discharged, while in others, and for the most part, the movement is so slow that there occurs food stagnation, which is the most serious condition met with in gastrectasis. Stagnation usually depends upon obstruction, particularly upon stenosis. When such is the case, the condition is at first not continuous, but intermittent, gradually becoming constant. Stagnation does occur when no obstruction can be made out, but it is uncommon in such cases. This retention of the food and the fermentation that goes therewith are potent factors in the establishment of chronic gastric catarrh. Bnt this pathologic state is not very frequent in gastrectasis unassociated with stagnation of food. Dilatation of the stomach in greater or less degree is an extremely common affection. However, it must be admitted that it generally escapes unnoticed, and patients receive treatment for resulting conditions, and often the stomach is not suspected as the source of trouble. This is true, because there may be an absence of that symptom-complex which is habitually referred to dyspepsia. More often there are dyspeptic symptoms that are believed to depend upon functional disturbances only, and the diagnosis is not made.

A diagnosis of gastrectasis is not possible from symptoms alone. By external palpation it may be discovered by the succession sound extending below the navel, and by careful immediate, or mediate, percussion, and by conjoined percussion and asucultation. Assistance may be had by distending the colon with fluid or with gas. Further evidence may be obtained by inflating the stomach with gas by means of a rubber bulb attached to a stomach tube, previously introduced, or by giving separately small portions of tartaric

acid and the bicarbonate of soda in solution. Gastrodiaphany, suggested by Max Einhorn, is useful, and much may be learned from the employment of the stomach tube in the hands of a practised person.

Stagnation of food is a very important symptom when present. An excess of lactic acid will usually be found. In some instances, hyperchlorhydria exists, which is particularly true in the early history of cases, but in many cases hydrochloric acid is absent, a state of affairs that is particularly apt to occur when there is long-continued food stagnation.

There was referred to me two years ago a middle-aged man, who desired to know what climate he should seek for the relief of his supposed consumption. I have rarely seen a man more emaciated. He had some stomach symptoms, a poor appetite, eructation of gas, regurgitation of food, and a sense of weight in his abdomen ever present. Such symptoms as are often found in the tubercular. He was constipated, the urine very scant and dark colored, low in urea and containing much indican. The skin was muddy, sallow and loaded with secretion. The picture of emaciation, anæmia and toxæmia, suggested malignancy rather than tuberculosis. The patient stated that he had been losing flesh and having dyspepsia for ten years. He had lost sixty pounds in weight, and now weighed one hundred and fifteen pounds.

On the 30th of September, 1892, a complete examination of the stomach contents was made, when it was found necessary to pass the end of the tube thirty inches beyond the teeth in order to completely evacuate the stomach. Then were removed a few ounces of disintegrated food, showing a trace of hydrochloric acid, a large amount of lactic acid, with excess of peptones and imperfectly changed starches. On careful inquiry it was found that the patient had been in the habit of regurgitating a large part of each meal for relief, and had thereby established a habit that doubtless assisted very much toward his emaciation. The patient was allowed a diet of lean meat and "zwiebach," and was treated by gastric faradization. He was urged to overcome the habit of regurgitation, and was successful. Improvement was immediate, and on Oct. 10th he showed better digestion, but with an excess of hydrochloric acid. Regular treatment of the stomach was discontinued about the first of December, although it was occasionally practised for two months thereafter, at the expiration of which time he considered himself perfectly well, and enjoys good health at this writing. His stomach is still large, but its chemistry is correct, and the symptoms of gastrectasis have disappeared. This was a case in which no stenosis of the pylorus was present, and is an instance of the striking improvement that sometimes may be accomplished.

As an example of gastrectasis with pyloric stenosis, the following is quoted briefly: A motorman, aged 27 years, presented the history of probable peptic ulcer some years since. He now complained of great loss in weight, weakness, loss of appetite, vomiting a large amount of sour material, eructation of gas, with pain and sense of tension in the abdomen. Examination of the stomach was made March 24, 1894, and revealed the lower border of the organ twenty-eight inches from the teeth. The contents was of the consistency and color of tar, of a disgusting odor, and although nothing had been eaten for several days, four pints of remnants of food, some of it taken weeks before, were found. In spite of the fact that there was a large amount of lactic and other organic acids present, free hydrochloric acid was found.

Great relief was experienced from the use of lavage, but the stomach emptied itself with the utmost difficulty, and the stagnation of food still remained a constant condition. Here was undoubtedly cicatricial stenosis following peptic ulcer, and the patient was informed that he would have to content himself with the moderate improvement to be obtained from lavage in the early morning, depending upon the absorption from the stomach for nutrition, or else submit to an operation.*

In cases depending upon imperfect innervation in which the dilatation has not too far advanced, long-continued treatment not only affords temporary relief to the patient, but sometimes results in the restoration of the stomach to its natural size and function.

*From inquiries just made, I learn that this man has so far improved as to enable him to resume his work as motor-man on a trolley car.

The well-known benefit arising from the lavage enables some patients to lead a reasonably comfortable existence without further treatment save the adjustment of the diet to the needs of the patient, and amount and variety being determined by the information gained from examining the gastric contents. Besides this, every effort should be made to improve the general health and innervation of the patient. It is commonly observed that these victims continue to do fairly well so long as they do not overwork, and so long as they in other respects lead examplary lives. Every excess, every over-strain, long-continued cold, or damp weather depresses them, and food stagnation with its train of symptoms supervene.

What I consider as an essential of treatment is gastric faradization. The external application of electricity is useless, and the supposed benefits a delusion. Of the several contrivances employed for discharging the current so that it will directly influence the gastric walls, those most commonly used are either Einhorn's or another first described by myself in 1887—where the button can be swallowed by the patient more easily than the tube, and where emptying the stomach is unnecessary. Dr. Einhorn's instrument is perfectly satisfactory. Personally, I generally employ the other form of instrument. The faradic current with a good coil and a large battery, producing a stimulating current, succeeds best in improving the muscle strength. When there is much irritation or catarrh, it may be necessary to use the continuous current. Either form is potent in re-establishing the gastric secretion.

Something is to be gained by drugs in certain instances, but their field of usefulness is limited. Hydrochloric acid on the one hand and alkalies on the other are beneficial. Sometimes large doses of nux vomica and physostigma assist. Antiseptics accomplish little. The diet varies much in different cases, and should be as liberal as practicable under the circumstances. The meals as a rule should be far apart, and the study of the stomach contents a few hours after the ingestion of food should be the guide as to the amount and character of the food allowed. Patients generally lose flesh during the course of active treatment by lavage, but after improving the local conditions and discontinuing the treatment the gain in flesh and in other respects is sometimes astonishing and almost invariably satisfactory.

# Reports of Societies.

## ONTARIO MEDICAL ASSOCIATION.

*(Continued from July number.)*

### EVENING SESSION.

The first paper of this session was read by Dr. J. E. Graham, the amphitheatre of the Normal School being well filled by medical men, lady practitioners and students in medicine. The subject of Dr. Graham's paper was "Some Remarks on Chronic Diseases." He made special reference to Bright's disease, the anæmias and tuberculosis. Treatment of these cases required a great deal of patience and tact. Strict attention should be paid to the patients diet, clothing, and general environments. Cases of parenchymatous inflammation of the kidneys were quite amenable to treatment. Prognosis was fair even after œdema occurred, even in apparently chronic cases; he knew of one case in which, contrary to the general teaching, the patient did best on nearly a complete meat diet, after having tried the milk diet with unsatisfactory results. Regarding anæmia, the gastric form, he had seen helped very much, in fact, cured, by lavage of the stomach every second day and the exhibition of arsenic. In another case of a woman aged 65, with a dilated heart, who had nausea, vomiting, diarrhœa, and considerable emaciation, accompanied by elevation of temperature, making the case suspicious of being one of pernicious anæmia until the blood corpuscles were counted and found not diminished in numbers. It was found that there was a diminution of urea in the urine, although no albumen nor sugar were present. Here the anæmia was due to the poisoning of the urea. Rest, careful dieting, administration of iron and arsenic produced a great improvement. Cases of other varieties of anæmia were referred to where treatment, based on a careful observation of the condition present, led to recovery. Regarding tuberculosis, most patients must be treated at home, and this could be done very satisfactorily by attention to the above-mentioned precautions, particularly in the first stage. As to medicine in these cases, he recommended the use of creosote as being the most helpful. The points to be observed in treating all chronic affections were, first, the necessity of more hopefulness in treatment; second, greater care to make an early diagnosis; third, to make a practical use of all the more recent discoveries in pathology and management of such diseases.

Dr. Bruce Smith followed, and pointed out very good results that followed examination of the stomach contents. He also referred to the causation of anæmia, and in its treatment he knew of

nothing better than the old Blaud's pill after the bowels had been opened with a saline. He believed in pernicious anæmia that complete rest should be injoined on the patient, and it was necessary that the functions of the body should be naturally performed before the administration of medicine. He wonld give arsenic in small doses first with a compound tincture of gentian. He spoke highly of the use of the stomach tube in dyspepsia, and he had found good results follow the use of a glass of hot water containing half a dram of soda half an hour before breakfast in gastric catarrh. He, too, spoke very highly of creosote in the treatment of pulmonary tuberculosis, administered with nux vomica. These patients did best, he thought, in the country where the air was pure and they could obtain lots of cream. Cream was much better than cod liver oil.

The "Symposium of Influenza" came next, Dr. L. H. Sweetman opening the discussion, his paper dealing with its general features. He spoke of its causation, its usual symptoms, its tendency to cause cardiac asthenia or pneumonia more particularly. He referred to the many cases of sudden death during convalescence. Regarding treatment, the big point was rest. He did not advise the use of the coal tar product for the fever except phenacetin in small doses. He also recommended modes of treatment for the other forms of the disease.

Dr. Lett, of Guelph, spoke of its nervous phenomena. This form was very common owing to the tendency of people now-a-days to become the subjects of nerve strain as a result of the tremendous activity of the age. He referred to the various neuralgias, neurites, paralyses, and mental affections, such as melancholia, occurring with la grippe.

Dr. Gregg spoke of the thoracia phenomena seen in this disease. There was a great tendency towards bronchitis, pneumonia and tuberculosis. The bronchitis in such cases attacked the right side more than the left. He spoke of a form of pneumonia which he had seen with indefinite symptoms. It did not run a normal course—the onset was insidious, there being no chill, there was no cough, and no râles, perhaps; but the temperature might run high, dyspnœa be present, and some dullness on percussion, the character of the pneumonia being modified by the poison of the influenza.

Dr. Harrison, of Selkirk, in speaking of the digestive phenomena of the trouble, gave a history of his own case, the principal features being dizziness, loss of appetite, bilious vomiting, with increased pulse and respiration, and some rise in temperature. It made him very ill. He got up, went out in the cold, and in two days was attacked by the thoracic form of the trouble, which he was not yet rid of. To his remembrance in his early days in England the coryzal form was most common. He found stimulants good in many cases, especially strychnia. Nux vomica was useful in the stomachic form.

Dr. A. H. Wright's paper referred to the influence of la grippe on the pregnant and puerperal woman. Influenza, he said, might cause abortion in the pregnant woman, especially in severe cases, where the temperature was high and the prostration great. The danger was still greater where thoracic complications were present. Severe gastro-intestinal catarrh accompanying this disease was a serious complication, and frequently terminated pregnancy. The high temperature might lead to the death of the fœtus. The influenza itself might be transmitted to the fœtus, but he did not consider this likely. Menorrhagia and metrorhagia were not uncommon accompaniments in this disease. Influenza uncomplicated induced abortion less than any other of the infectious diseases. During labor, this disease was a serious complication, its tendency being to weaken the expulsive efforts of the uterine and abdominal walls. Dr. Wright had collated ten cases of influenza made up of lying-in woman of the Burnside Lying-in Hospital. All recovered without any serious symptoms in from two to five days. Perfect rest in a dry, warm place was the best treatment; the influenza germ loved moisture and cold. On the whole, this class of patients stood influenza well.

Dr. McDonagh spoke of the phenomena of influenza as seen in the nose and throat and adjoining cavities — the antrum, the ethnoid sinus, frontal sinus, etc. He pointed out the characteristic features seen where each of them was involved. The effects of the poison were also noticed on the nervous and muscular structures of the parts involved. The sense of smell was often lost.

Dr. Fox, of New York, then gave an exhibition of lantern slides, illustrating syphilis of the skin, principally, in its various forms. The first slide showed an immense nævus immediately below the eye on a patient's face. The second slide showed the appearance of the face after its removal. The operation had been a brilliant one, as the nævus had been completely eradicated. The patient himself was present, whom the members examined. The result was extremely good. The other slides which had been prepared by Dr. Fox were excellent, and the views of them upon the canvas were splendid illustrations of all the various forms of the cutaneous syphilides. A vote of thanks was tendered to Dr. Fox for his interesting and instructive lecture.

Thursday morning, June 7th.

Dr. Harrison, of Selkirk, in the chair.

Dr. E. E. King read a paper on "Uncured Gonorrhœa: causes and consequences." He dealt

with the unfortunate result of an infected person marrying, and the great care that should be taken in examining to see if the disease has been wholly cured. He dwelt on the difficulty of getting these patients to follow directions and to appreciate the real dangerous character of the trouble. He read certificates furnished by physicians to the husband of a patient of his who had taken the precaution before marrying to secure documentary evidence as to his freedom from this disease, when a careful examination would have shown that the disease was still lingering. He characterized the giving of such certificates as actionable malpractice, only the nature of the affair relieved the culpable physician from having the matter aired in a court of law.

Dr. W. H. B. Aikens asked that Dr. King be more specific as to the character of injections he prescribed.

Dr. Campbell, of Seaforth, liked the paper and thought the subject important. In his practice he had not had a case of disease of women produced by this cause. He thought no man ought to marry when afflicted with this disease, and physicians ought to be careful about giving certificates in relation thereto.

Dr. Harrison thought it was by reason of his being a country practitioner that he had not seen these cases. At an American medical convention he attended, it was recommended there that there should be circumcision in the case of all male infants as a protection against syphilis and gonorrhœa, but considering that only one in a thousand is afflicted with the troubles, he did not think that all should be deprived of their foreskins. If reports were true as to the results of city education, he thought the persons in the city ought to be very much interested in the paper read.

Dr. King, in reply, was pleased to state that the percentage of cases in cities was not so high as was sometimes reported, though more frequent than imagined. The disease was one alike neglected by patient and physician. It would take too long for him to indicate the treatment. There were cases of uncured gonorrhœa, not permanent in their symptoms, and a person might have the dregs of the disease locally situated and not be thoroughly aware of it, having had it so long he had become used to it. Too often when such a patient comes to the physician, he gets just the advice he wants,—he wants you to tell him he is all right. The urine had to be carefully examined for shreds; without doing this, one could not safely give a certificate.

Dr. Graham Chambers read a paper on the treatment of morphia poisoning by permanganate of potash, giving a report of experiments. These experiments were made with the view of comparing the results with those obtained by Dr. Moore, who had himself taken three grains of morphia and followed it by a few grains of permanganate of potash, suffering no ill effects. Dr. Chambers had made some experiments on dogs, having given as high as six grains to a dog at one dose hypodermically, followed by ten grains of permanganate of potash, without marked change in the animal's condition. The inactivity of the alkaloid he believed was due to the oxidation of the morphia by the permanganate of potash. The Doctor presented to the Association some reactions of permanganate solution and morphia solution, the permanganate solution becoming decolorized.

Dr. Lett said the subject was important, and if permanganate of potash does all that is claimed for it, the discovery would be hailed with satisfaction. Dr. Chambers in his paper had referred to Dr. Moore's experiment, but Dr. Lett thought before that could be relied on, it should be ascertained whether Dr. Moore was a morphine eater. Dr. Chambers' experiment with a dog produced a condition similar to what Dr. Lett had seen produced by strychnine, so he did not think the test could be relied on. The test for the detection of morphia shown by Dr. Chambers he thought very delicate. He wished to know how to get rid of the products in the urine, so as to detect a very small portion of morphia.

Dr. Cameron thought if there was much organic matter in the stomach that the permanganate would lose its effect in oxidizing the matters there, before having an opportunity of operating on the morphia itself.

Dr. McLaughlin reported the case of a woman patient coming under his observation where permanganate of potash was used hypodermically and did no good.

Dr. Chambers, in reply, said, with regard to the action of the permanganate on food stuffs, it was a disputed point, but that from experiments made by himself it appeared that they would not interfere with its action. There was a difference in the quickness of its action when such were present. As to its action on alkaloids as inquired about by Dr. Cameron, he said some work had been done. He had made experiments with strychnine and found the permanganate was decomposed by the strychnine, but he thought it was of doubtful utility in poisoning by this drug. As to detection of morphine in urine, his method was to make it alkaline and then evaporate down. The best test was the iodic test.

### SURGICAL SECTION.

Thursday morning, June 7th.

The first paper in the section was presented by Dr. Welford, of Woodstock, entitled "Fractures and Dislocations of the Vertebræ." His plea was for operations in these cases before degenerated

changes take place in the cord. He reported two cases he had had where considerable relief was afforded by operation. He maintained that if they had been operated upon earlier, there would have been a good chance for complete relief. The first case was a fracture-dislocation. All above the sixth were dislocated forward. The right arch of the fifth was fractured. Spicula of bone protruded into the canal, but did not puncture the membranes. On the sixth day he was called. Pulse was 155, temperature 104, and respiration feeble. Although some relief was afforded, the patient succumbed. In the second case, there was a fracture-dislocation between the eleventh and twelfth dorsal. The posterior arches were removed. The sheath was adherent to the arches, so that the marrow was exposed. The patient gained some power in the right leg and foot, and a return of sensibility two and a half inches below where it was prior to the operation. There was no improvement on the left side nor in the bladder nor rectum.

Dr. Peters agreed that the operations should have been done earlier. Degeneration took place in such cases in three days. Every spinal injury was not favorable for operation. Where it was known that the fracture-dislocation had severed the cord across, operation was useless. If there was a history of motion and sensation for a short time after the lesion, hæmorrhage was likely the cause, and improvement would take place without operation.

Dr. King presented a blacksmith who had sustained an injury to the back while working under a buggy. The props slipped, and buggy fell on top of him, bending him forward so that his head was brought between his knees. Both clavicles were anteriorily dislocated, and a knuckle presented in the neighborhood of the eleventh dorsal vertebra. There was consideration separation between the eleventh and twelfth. There was no impairment, however, of motion or sensation. But there was difficulty in getting the bowels to move.

Dr. Spencer thought that the patient presented had not sustained any injury to the spinal cord, that there was no effusion of spinal fluid, but that hæmorrhage had probably taken place.

Dr. Welford closed the discussion.

Dr. N. A. Powell then interested the Association with an illustration of his method of photographing pathological specimens, and also of procuring photographs of operations while in progress. He also showed an ingenious device for making the flash in taking photographs by the flash light.

Dr. Meek, of London, reported four cases of abdominal section. The first was for dermoid cyst of the ovaries, the second for hæmatosalpynx, the third for suppurative appendicitis, and the fourth for cancer of the pylorus-cholecystenterostomy. He had good success in all. The history of the cases were very interesting.

Dr. Bingham read a paper on "Appendicitis," in which he discussed the classification and treatment. He also gave the report of a case. In the first type of this trouble the symptoms were mild, being usually associated with accumulated masses of fæces in the cæcum. Recovery usually followed. The second class was where the disease progressed to suppuration. These cases required to be closely watched, for there was great danger of perforation and general peritonitis. He thought this not likely to occur within four or five days; perforation sometimes took place in the intestine, bladder, or externally. The third class was the relapsing appendicitis. Operation in these cases might be left till the subsidence of the acute attack.

Dr. McKinnon and Dr. Whiteman discussed the paper.

The next paper was by Dr. J. D. Gibb Wishart, the subject being, "Empyæma of the Antrum." This was the history of an obscure case; it was difficult to diagnose because few of the symptoms were referable to the antrum; the pain was outside the orbit, the patient failed to lie on the diseased side; the reverse being usually the case. Then the character of the discharge was white like casein, instead of yellow, as is usually the case. Drilling was performed through an upper molar cavity, and the antrum washed and drained.

Dr. Price-Brown discussed the paper.

Both sections then adjourned. About two hundred of the members were then conveyed to the Royal Canadian Yacht Club on the Island, where the city members entertained the outside members to luncheon. A very enjoyable social time was spent.

The Association re-assembled at 4 p.m., to listen to a paper on "Gastrectasis," by Dr. Stockton, of Buffalo. He defined the meaning of the term, and spoke of its effects on the functions of the stomach. For its relief, drugs were of not much service. He recommended the use of lavage and faradisation of the stomach walls. He showed Einhorn's button, which the patient swallowed for the electrical seances, a cord being attached to the electrode to withdraw it when the treatment was over. Dr. Stockton also showed an ingenious device of his own for the electrical treatment. It consisted of an electrode on the end of a stillette which was introduced through the stomach tube, which had previously been inserted to convey the salt water needed. At the end of the treatment, the electrode could be withdrawn, then the salt water, then the stomach tube.

Dr. Doolittle gave the history of a severe case where he had used Einhorn's apparatus with good success.

Dr. Hingston thought such treatment was unnecessary, if the patient would observe three rules,—first, to eat less; second, to eat more slowly; third, to refrain from drinking at meals.

Dr. Davidson said that the precautions referred to by the previous speaker, were not sufficient in his idea, when the disease had become established. He favored the treatment by lavage and electricity.

Dr. W. H. Hingston, of Montreal, then read a paper on "Cancer of the Breast." He referred to the various theories with regard to the causation, inclining to the microbe or the inflammatory. He advised that the axillary glands should not be removed unless affected. In dissection after the primary incision, the finger was better than the knife to enucleate the mass. If the pectoral muscle were affected at all, he advised its entire removal. The stitches should be put in back from the line of incision, so as not to cause any undue irritation to the edges. He advocated removal even up to half a dozen times if necessary.

Dr. E. E. Kitchen, of St. George, gave a graphic account of the great International Congress held at Rome to which he was a delegate.

Dr. J. F. W. Ross read an interesting paper on "Papilloma of the Ovary," reporting two cases. The disease usually attacked both ovaries. Two varieties might be spoken of, the first being applied to the growth before its rupture of the capsule, till which time it might be considered as non-malignant; the second, its condition after rupturing the capsule when it might be looked upon as malignant. He advised early operation. He presented sketches and water colors of the pathological specimens. He also presented a cyst of the broad ligament which he had just removed.

Dr. McPhedran read a paper on "Diuretin," and cited several cases where it had been useful. These were cases of arterio-sclerosis and chronic cardiac diseases. He had found diuretin very helpful in relieving the symptoms where œdema was present, or where there was mitral incompetence. In large doses, its effect was similar to poisoning by salicylic acid.

EVENING SESSION.

The first paper was by Dr. Primrose on "Sprains." He went into the pathology, diagnosis and treatment of these cases. He presented the history of some cases. His plan of treatment consisted in swathing the joint with a large quantity of cotton batting and bandaging over this very firmly. Massage was useful. Passive movements should be used where there was danger of adhesions at the end of 8 or 10 days, especially if accompanied by a Pott's or Colles' fracture.

The Secretary then read a comunication from the Secretary of the Prison Reform Association regarding the establishing of a Home for inebriates. The Association passed a resolution in favor of this movement.

Dr. McKinnon introduced a motion recommending the establishment of a Home for epileptics. This was unanimously supported.

Dr. E. Herbert Adams introduced a resolution favoring the establishment of a Home for sufferers from pulmonary tuberculosis. This was also unanimously carried.

Dr Johnston then presented the report of the special committee appointed to report on the matter of lodge practice:—"The special committee on lodge practice begs to report that in their opinion the time has arrived when this Association should pronounce its judgment on the evils of club, lodge or contract practice, or engaging to do work any rate below that fixed by the legal tariff of the district, and should take some decided action in, first, calling on all members of the association to cease making, after the end of the current year, any further engagements to do such work; second, that the secretary of this Association communicate at once with the Medical Council and urge that body to issue a circular to each member of the College of Physicians and Surgeons, informing him that any medical man persisting after this year in doing lodge or club practice shall be considered guilty of unprofessional conduct as defined by the statute in such case made and provided."

Certain phases of the question were warmly discussed, but the resolution carried unanimously.

The report of the Committee on Nomination was adopted. The following gentlemen were elected as officers of the Association for the coming year: President—Dr. R. W. Bruce Smith, Seaforth. Vice-Presidents—First Vice, Dr. A. A. Macdonald, Toronto; Second Vice, Dr. A. B. Welford, Woodstock; Third Vice, Dr W. J. Saunders, Kingston; Fourth Vice, Dr. Forest, Mount Albert. General Secretary, Dr. J. N. E. Brown, of Toronto. Assistant Secretary, Dr. Charles, Temple, Toronto. Treasurer, Dr. J. S. Burns, Toronto.

The General Secretary, Dr. Wishart, then gave his report.

Dr. Harrison, President of the Dominion Medical Association extended a hearty invitation to all the members to attend the Dominion Medical Association to be held in St. John's, New Brunswick, in August.

The President-elect, Dr. R. W. Bruce Smith, was then installed, and after a neat speech, in which he thanked the Association for the honor done him, he declared the fourteenth annual meeting of the Association adjourned.

---

The mortality from tuberculosis in the United States is about 450 per day.

## MICHIGAN STATE BOARD OF HEALTH.

The Michigan State Board of Health held its quarterly meeting at the office of the Secretary, in the Capitol at Lansing, July 13, 1894. The meeting was called to order by President Frank Wells of Lansing. Prof. Fall, of Albion, Dr. Vaughan, of Ann Arbor, and Secretary Baker of Lansing, were present. The regular business, including the auditing of bills and accounts, was transacted.

The Secretary presented a tabular statement showing the small-pox in Michigan since Jan. 1st, 1894. The statement showed that in the State there had been 26 outbreaks at 21 places, with a total of 88 cases and 23 deaths—26 having recovered and 39 still remaining sick, at nine places.

In the 26 outbreaks there have been, on the average, to each outbreak only 3.4 cases, and .9 of one death. In nine of the thirteen outbreaks which are now over, the infection was restricted to one house in which the first case occurred.

President Wells said that he had long noticed that the weekly Health Bulletins, published by the State Board, show that of the twenty-eight diseases reported upon by the regular observers around the State, rheumatism is usually at the head of the list as causing the most sickness in Michigan. Mr. Wells raised the question whether there was anything that this Board could do in the way of publication of information which might tend to lessen the amount of sickness from rheumatism. Dr. Vaughan said he knew of nothing tangible yet relating to the restriction and prevention of rheumatism, which could be imparted to non-professional people. Rheumatism is a term used for many aches and pains. He thought no work should be undertaken now which will interfere with the tremendous effort being put forth by this Board for the restriction and prevention of tuberculosis, the most important of all diseases.

Doctor Baker said, that the State Board has already done much for the creation of knowledge respecting the causation of rheumatism, which knowledge is essential to a proper action for its prevention. But we must wait for an advance in two lines of investigation not much entered upon by this Board—that of bacteriology and that of physiological chemistry. Several times in the past, it has seemed that facts were going to crystalize into a tangible theory ; but just as appearances were most favorable, ideas of medical investigators regarding the causation of rheumatism have changed. Much has been learned from the Sickness Statistics collected and published by this Board. Curves have been made showing that rheumatism has a direct relation to meteorological conditions. The facts in the office show that tonsillitis follows the cold atmosphere and that rheumatism follows tonsillitis. It is quite probable that if rheumatism is a germ disease, tonsillitis prepares a soil favorable to the reproduction of the germ, and a way for its entrance into the body. We are waiting for the bacteriologists to find the specific organism. So far as I know only the pus-forming germs have been found in connection with rheumatism, and it is quite possible that they are the cause of the disease ; if so its increase following the sore throats caused by "raw" cold weather is explained by the facts on record in the State Board of Health Office. Diagrams exhibiting the rise and fall of rheumatism by seasons of the year, prove that its course is similar to that of small-pox, consumption and other diseases known to be caused by germs, and known to enter the body by way of the air-passages. Secretary Baker suggested that a committee might be appointed to investigate the subject, and report to this Board at some subsequent meeting.

Dr. Vaughan said that at present, all is speculation as to the causation of rheumatism, but he thought it quite probable that Dr. Baker's idea of the causation of rheumatism may be nearly the proper explanation ; but that he would explain rheumatism as being a result of an over-exertion or unusual destruction of the cells of the body in trying to protect the body from an attack of germ disease ; in other words, it is an over-drugging on the part of nature in order to throw off an attack of some germ disease. The uric acid, which is not excreted rapidly enough, and which accumulates in the body and causes the rheumatic pains, is formed by the action and destruction of cells.

On motion of Prof. Fall, it was voted that Dr. Baker prepare and read at a future sanitary convention a preliminary paper on the causation, restriction and prevention of rheumatism.

The Secretary presented an invitation from the Common Council for the Board to hold one of its Sanitary Conventions in Charlotte, the council having appointed a committee to confer with the Board. After consideration a committee of the State Board was appointed to meet with the local committee at Charlotte, and make arrangements for the proposed Convention.

A petition signed by the President and Trustees, and a large number of the prominent citizens of Union City, asking for a Sanitary Convention, was read and considered. A committee was appointed to visit and make arrangements for a convention at Union City.

The Board authorized the Secretary to reprint the leaflet on the restriction of typhoid fever to the number of 10,000 copies ; also a modified form of the pamphlet on restriction and prevention of small-pox.

For a few years past Prof. Vaughan has been engaged in some very important experiments in the State Laboratory of Hygiene, at the University. These experiments relate to subjects of very great importance to the public welfare. One pur-

pose is to accomplish the end which at one time it was thought had been reached by Dr. Koch, namely: The preparation of a substance which can be introduced into the body, and which shall antagonize germs of disease such as those of consumption. Prof. Vaughan is now able to prepare a substance which there is reason to believe may be similar to the one normally used by the human body in battling with the germs of disease. His experiments are not yet conclusive as to the usefulness of this substance for the cure of disease, but they tend to prove that by its use immunity to the contraction of germ diseases is enhanced. The substance consists of the nuclein of cells, and since it is probable that the spleen is the organ in the body which takes the most active part in battling with germs of disease, he has given special attention to the preparation of "nuclein" made from the cells of the spleen.

Prof. Vaughan has presented this subject before the Medical Society in this country, and he now goes to the International Congress of Hygiene, which meets in September, this year in Budapesth, Hungary, where he expects to meet the scientists engaged in this and other lines of scientific work, who will be there from every civilized country. From the discussions which will there take place, he expects to gain much knowledge which will enable him to continue and extend his exceedingly important work. He goes as a delegate from the Michigan State Board of Health, and the Board expects Prof. Vaughan to contribute, for the welfare of humanity, fully as much information as he will receive. This is not Prof. Vaughan's first trip across the ocean. His first one was some years ago for the purpose of studying bacteriology in the laboratory of Prof. Koch. Three years ago he attended the International Congress of Hygiene which then met in London, England. His present trip is regarded as of much greater importance in connection with public health work.

Secretary Baker, as Committee on Climate, etc., presented the subject of the "Decrease of the Amount of Carbonic Acid Gas in the Atmosphere," and remarked that some twenty years ago he had asked the Board to authorize a series of regular and accurate chemical analysis of the atmosphere, with a view of determining whether there was any change in the amount of the carbonic acid in the atmosphere by seasons of the years, and by long periods of years. The subject is important now, and may become more so, in relation to the public health. Dr. Baker quoted from the *Chemical News*, London, August, 1893, as follows: "As evidence that the composition of the atmosphere is still slowly changing, it is stated that the last and most careful determinations of carbonic acid in the air have shown a decided decrease (0.05 to 0.03) in the last fifty years." On motion of Dr. Baker, the subject was referred to Prof. Fall, of Albion, with request that he should report at the next meeting of this Board, relative to methods and cost of the proposed series of tests of the atmosphere.

### HEALTH IN MICHIGAN, JUNE, 1894.

Reports to the State Board of Health, Lansing, by observers in different parts of the State, show the diseases which caused most sickness in Michigan, during the month of June (4 weeks, ending June 30), 1894, as follows:—

| Number of reports received for this month, 238. | Per cent. of reports stating presence of disease. | | |
|---|---|---|---|
| Diseases arranged in order of greatest prevalence in this month. | June, 1894. | May, 1894. | Average for June, 8 years, 1886-1893. |
| Rheumatism | 63 | 69 | 70 |
| Neuralgia | 53 | 58 | 63 |
| Bronchitis | 39 | 51 | 51 |
| Diarrhœa | 37 | 27 | 40 |
| Consumption, Pul | 36 | 40 | 59 |
| Tousillitis | 31 | 46 | 39 |
| Inflammation of Kidney | 27 | 24 | 22 |
| Intermittent Fever | 26 | 25 | 44 |
| Influenza | 21 | 39 | 29 |
| Remittent Fever | 17 | 14 | 27 |
| Inflammation of Bowels | 16 | 15 | 14 |
| Scarlet Fever | 16 | 16 | 10 |
| Whooping-Cough | 16 | 10 | 12 |
| Cholera Morbus | 15 | 7 | 14 |
| Pneumonia | 14 | 27 | 17 |
| Erysipelas | 13 | 18 | 23 |
| Measles | 13 | 22 | 17 |
| Pleuritis | 12 | 14 | 15 |
| Diphtheria | 10 | 8 | 7 |
| Cholera Infantum | 7 | 4 | 7 |
| Dysentery | 7 | 5 | 10 |
| Inflammation of Brain | 6 | 4 | 5 |
| Typhoid Fever (ent.) | 4 | 7 | 5 |
| Puerperal Fever | 4 | 2 | 4 |
| Typho-mal. Fever | 3 | 1 | 5 |
| Small-pox | 3 | 1 | .05 |
| Cerebro-Spinal Meningitis | 2 | 1 | 3 |
| Membranous Croup | 1 | 4 | 1.7 |

For the month of June, 1894, compared with the preceding month, the prevailing direction of the wind was south-west (instead of north-west), the velocity was two miles per hour less, the temperature was 14.84 degrees higher, the rainfall was 4.70 inches less, the absolute humidity was more, the relative humidity was less, the day and night ozone were less, and the depth of water in the well at Lansing was three inches more.

For the month of June, 1894, compared with the preceding month, diarrhea increased, and pneumonia, influenza, measles, tonsillitis, erysipelas and bronchitis decreased in area of prevalence.

Compared with the average for corresponding month in the eight years, 1886-1893, the prevail-

ing direction of the wind was the same (south-west), the velocity was slightly greater, the temperature was 2.98 degrees higher, the rainfall at Lansing was 1.64 inches less, the absolue and relative humidity were more, the day and night ozone were less, and the depth of water in the well at Lansing was four inches more.

Compared with the average for corresponding months in the eight years, 1887-1893, scarlet fever and whooping-cough were more prevalent, and erpsipelas, intermittent fever, remittent fever, influenza, consumption, and bronchitis were less prevalent in June, 1894.

Including reports by regular observers and others, *consumption* was reported present in Michigan in the month of June, 1894, at two hundred and nineteen places; *scarlet fever* at eighty-nine places; *measles* at eighty-one places; *diphtheria* at forty-eight places; *typhoid fever* at thirty places; *small-pox* at thirteen places; and one case of suspected *typhus fever* at Gobleville.

Roports from all sources show *measles* reported at forty-nine places less; *diphtheria* at twenty-four places less; *scarlet fever* at nineteen places less; *small-pox* at six places more, and *consumption* at one place less than in the preceding month; *typhoid fever* was reported at the same number of places as in the month of May.

HENRY B. BAKER,
*Secretary.*

Lansing, Michigan, July 5, 1894.

## Selected Articles.

### BRIGHT'S DISEASE AND ANESTHETICS.

The term Bright's disease, though not framed upon anatomical or pathological conditions, is perhaps as comprehensive as any single expression that can be applied to this very complex disease, involving so many tissues.

Bright's disease is not only a disease of the kidneys, but a disease of the heart, and vascular system as well. Some have supposed it to be due to a diseased condition of the blood, others of the sympathetic nervous system. We all know where it ends, but no one as yet knows where it begins.

The nephritis is probably not the primary disease, but rather secondary to a chronic endarteritis, since it has been observed to follow in regular course upon the symptoms and manifestations of endarteritis, when disease of the kidney not only had not been suspected but could not be demonstrated. Usually, however, the two conditions are associated, and when a patient presents the evidence of arterial degeneration, even in its early state, diseased kidneys, either present or prospective, must always be suspected.

When a patient is found to have hypertrophy of the heart with atheromatous valves or arteries, which may result in hæmorrhages upon the mucous or serous surfaces, irregular heart action, palpitation, vertigo, and headache; and more especially if there be œdema or bronchitis, with muscular debility, and a train of nervous symptoms, such as ill-temper, loss of memory, or even insanity. When these symptoms are grouped together, it behooves one to look to the kidneys for an explanation.

We may be disappointed in the search for albumin, or even for renal casts and epithelium, but we will generally be safe in making a diagnosis of Bright's disease. The presence of albumin is by no means constant, and when found is, if considered by itself, of little diagnostic value, as it may result from cystitis, from renal congestion due to pressure upon renal veins by the pregnant uterus or other tumor, from ingestion of food, muscular exercise, febrile action, surgical operations, and many other transient causes. But the albumin disappears when the cause has been removed. Again, patients with acute nephritis often pass large quantities of albumin with hyaline and granular casts, yet make a complete recovery.

Kelley has shown that hyaline and granular casts are some times present after abdominal operations, and subsequently disappear. It would seem from this fact that the anesthetic is in some measure responsible for their presence. He has also confirmed the statement that albumin and casts, often present with large abdominal tumors, are due to pressure of the tumor upon the ureters or renal veins, and it usually disappears after removal of the tumor.

Albumin appearing after operation is usually due to cystitis occasioned by concentrated urine. If albumen is suspected to be due to some bladder complication its source is easily determined by thoroughly emptying and irrigating the bladder, and then examining the urine that collects in the next few minutes. If one kidney is suspected of being diseased this may be determined, in the female, by catheterizing the ureters after Kelly's method, and examining the urine from each kidney separately.

If albumin is shown to be of renal origin, its presence is always significant of changes in the secreting tissues of the kidneys. If associated with tube casts and low specific gravity, with normal or increased quantity of urine, the surgeon must proceed with caution, and before operating see that bowels and skin are in good condition to eliminate products, which, after operation, the kidneys may not be able to care for.

The autopsy records of most hospitals show deaths from suppression of urine following anesthesia for surgical operations. The previous history of many of these cases show that examina-

tion revealed no sign of albumin, no casts, no renal epithelium, and yet the autopsy book shows that they had contracted kidney.

Most operators of much experience have had the misfortune of having patients die from suppression of urine from one to four or five days after anesthesia either by chloroform or ether; and in these patients Bright's disease was not suspected until revealed at the autopsy. A diagnosis of contracted kidney cannot be made in many cases by urinalysis, and heart and arteries should be carefully examined for atheroma or enlarged ventricle. If the urine is of high specfic gravity, scanty and highly colored, with albumin or casts, and the heart hypertrophied, with pulse of high tension, the probabilities are greatly in favor of disease of the kidneys, and also of an autopsy following operation.

The cause of suppression of urine following anesthesia is as yet a matter of speculation. It has been supposed to be due to the suspension of oxidation caused by the surcharge of the blood by ether or chloroform, and by deprivation of oxygen during its administration. (Porter.) Carstens thinks that it depends upon poisoning of the solar plexus. Others attribute it to refrigeration of the body from exposure, rather than to the anesthetic. Again it is attributed to free sweating and unloading of the blood vessels of serum, thus concentrating the blood, and making it unnecessary for the kidneys to excrete water, consequently the solids remain in circulation, uremia and death resulting.

The actual cause may be found in the direct irritant effect upon the epithelial cells of the few remaining malpighian tufts of the foreign and volatile vapor circulating in the blood, and seeking every avenue of escape. Although both anesthetics are rapidly eliminated, it is a matter of common observation that the odor of ether, more than chloroform, can be detected in the patient's breath many hours after consciousness has returned, and while constantly diminishing in quantity in the circulation, nevertheless, if it be, in any degree, an irritant to the renal cells, this action is continued until it is entirely eliminated, which may be several hours. Authorities all agree that suppression of urine follows administration of ether in a certain number of cases, but many instances are reported in which suppression has also occurred after the use of chloroform in chronic parenchymatous and chronic intestinal nephritis.

Ether has been looked upon as the safer anesthetic, probably because death on the table has been less frequent than with chloroform. Death on the table is doubtless due to paralysis of the cardiac or respiratory centers, and inhalation of a large quantity of anesthetic seems not to be necessary. The more remote death due to uræmia, after prolonged and profound anesthesia, while it may indirectly result from the action of the poison upon the nerve centers, is ostensibly due to retardation of the excretory functions of the various eliminatiug organs. Doubtless the quantity of the anesthetic is important and should receive due consideration in all cases of anesthesia, but especially so when the kidneys are known or suspected to be diseased.

Ether, like chloroform, during prolonged anesthesia, depresses the heart, hence in case of chronic Bright's disease, chloroform should receive the preference, if operation be imperative, because anesthesia can be more quickly induced, more easily maintained, than with ether, and with a very much smaller quantity of the drug, while during its administration a much larger proportion of atmospheric air is permitted, by which the natural functions of life are maintained.

The hypodermic use of morphine before giving ether anesthetic is certainly rational, notwithstanding the fact that morphine temporarily diminishes the secretions. It does not totally suppress them, and the anesthetic does; hence substituting morphine for chloroform diminishes the risk of suppression by diminishing very materially the amount of anesthetic required. The previous use of ethyl bromide may prove an advantage in those hazardous cases, as it produces unconsciousess and muscular relaxation much more quickly than chloroform, with which the operation may be continued.

If the case is one of undoubted contracted or large white kidney, avoid operation entirely, if possible, or use local anesthesia. If albumin and casts are due to pressure of an abdominal tumor, and no cardio-vascular changes can be found, it is comparatively safe to anesthetise. Select chloroform, and use salines soon after operation, that the bowels may relieve the kidneys of the work. If albumin and few hyaline or granular casts are found, use as little anesthetic as possible and operate quickly. If the urine be scanty, of high color, with high specific gravity and cardio-vascular changes, beware !—F. B. Carpenter, M.D., in *Occidental Medical Times.*

## CHOLERA VACCINE.

Since the days when it was first sought to control the ravages of small-pox by means of inoculation, and subsequently of vaccination, no greater interest has attached to the question of inhibitive inoculation than that which has been aroused in India and elsewhere by the proposal to protect communities against cholera by some such preventive method. A brief account of M. Haffkine's process of anti-cholera inoculation, as practised in India, has appeared in the public press; but as

re are able to refer to the actual text of Dr. impson's report to the municipality of Calcutta n the subject, we are in a position to set out nore definitely than has yet been done, what is he actual stage which has been reached in these xperiments.

Since M. Haffkine arrived in British India he as inoculated not less than 25,000 people with the preparation which he alleges and believes to be preventive of cholera. Having succeeded in engrafting the cholera bacillus on animals, and in subsequently cultivating it indefinitely on them, he secures that which he calls—or rather, we think, miscalls—a "vaccine." He then prepares two "vaccines," one mild and the other strong; and he inoculates the human subject first with the mild vaccine, which produces some pain, discomfort, and fever for about a day; and then, after a lapse of about five days, a second inoculation with the stronger preparation is given, the immediate consequences being much the same as when the mild vaccine was used. But in the absence of the means of differentiating somewhat accurately between the effect of prevailing cholera on those who had submitted to the preventive inoculation and those who had not, the mere number of M. Haffkine's inoculations carried but little weight. When, however, the cholera season of 1894 began in Calcutta, M. Haffkine, with the aid of Dr. Simpson, was enabled to make some experiments which, to say the least, are of distinct interest and importance. He was able, in localities where cholera was actively prevailing, to induce some of the inhabitants to submit to his inoculations and to watch the result both on them and a number of other persons living under the same circumstances, but who for one reason or another had not been subjected to the inhibitive inoculations.

The results were watched with care by Dr. Simpson, on behalf of the municipality, and in his recent report to that body he gives some instances which appear striking. The following is one of these: "In Mungloo Jemadar's house a fatal case of cholera occurred on March 29th. On the 31st eleven members of the family, out of a total of eighteen, were inoculated. It so happened that cholera again breaking out in the house and attacking four persons, of whom three died, selected four of the seven not inoculated, while the eleven inoculated remained perfectly free." Other examples of the same sort are given, and though the numbers included in each example are small, yet it is noteworthy that, whereas in each of them cholera did attack one or more of those who had not been inoculated, it failed to attack anyone of the inoculated. Such an experience is unquestionably of interest when it concerns a community such as that of Calcutta, where cholera is not only endemic, but where it also appears periodically in epidemic form. And hence Dr. Simpson urges upon his municipality that they should for a while secure the services of M. Haffkine in order that he may continue his experiments.

Dr. Simpson wisely urges caution in arriving at any hasty conclusion. He properly refers, of course, to the very limited means as yet available for the formation of any final opinion, and he adds that tests such as those he records would have to be made "over and over again" before any ultimate conclusion could be arrived at. We may, therefore, trust to him for the caution needed in this respect. But another caution is also needed. Dr. Klein, repeating M. Haffkine's earlier experiments, has found that whilst intra-peritoneal injection of the bacillus of cholera in non-fatal doses did in the case of guinea-pigs confer an immunity against what would otherwise have been fatal doses of the same bacillus, yet the same immunity against the cholera bacillus was produced by the injection of a number of other and even of non-ipathogenic bacilli, such as bacillus coli. And he drew the inference that whilst it was quite possible that all these different species were alike as regards their intra-cellular poison, yet this poison and any protection, whether evanescent or permanent, given against it must be distinguished from those poisonous substances which are elaborated by one or other of these species in nutritive media, including the medium of the human body. Having regard to these considerations, we trust that the greatest practical accuracy of observation will be observed in the experiments which can hardly fail to follow the appeal which has been made to the municipality of Calcutta by their able and untiring health officer, and under such circumstances the continuance and perfecting of the experimental measures adopted give promise of results which, in one or other way, will have interest for all scientific men, and especially for those who are concerned with the health and well-being of the population of India. But we cannot conclude these remarks without expressing one further hope—namely, that no inoculation experiments will be allowed to stand in the way of the active pursuit of those measures of sanitation by means of which alone Calcutta and other towns, whether in India or elsewhere, can ever be freed from the scourge of cholera.—Ed. *Lancet.*

## CLINICAL DEMONSTRATIONS.

Mr. Jonathan Hutchinson was "at home" on the afternoon of the 27th ult. for his usual demonstration of clinical cases at his Clinical Museum in Great Portland Street. These "afternoons," judging from the attendance of practitioners, are fast becoming very popular, a fact which is by no means surprising, considering the halo of attraction which environs all Mr. Hutchinson's work a a

teacher. His facile manner in demonstrating a case, and of endowing it with interest, by drawing upon his illimitable stores of clinical knowledge, are striking features of his wonderful capacity in this respect. Presumably it is not known yet to the profession in London that these demonstrations are perfectly free, that Mr. Hutchinson welcomes all practitioners who may wish to come, and that the meetings take place on Tuesdays until further notice, otherwise it could not fail to be the case that the rooms would soon be overcrowded.

Among the cases which came under notice on the 27th ult. was one of prurigo. The patient was an elderly man of 63. His whole skin was in a pruriginous condition, with scars in many places, and the case was described by Mr. Hutchinson as a typical one of prurigo. The man was evidently a "good scratcher." On inquiry the patient stated that the disease first troubled him when he was thirty years of age, and since then he had never been free from it. The irritation was always worse when he was warm in bed at nights, and was infrequently kept awake for three or four hours at a time scratching himself. The question of the duration of the disease was one of some importance. Mr. Hutchinson did not agree with Hebra's views on the matter, namely, that prurigo always began soon after birth and continued to the end of life. He (Mr. Hutchinson) had never met with a case of the kind, neither in private nor hospital practice. He had sought for cases diligently but without result, and even in the hospitals in Vienna he could not find a patient whose history supported Hebra's description in this respect. The probability was, however, that the disease never began quite without some exciting cause. Among such causes might be enumerated, attacks of scabies, jaundice, or the presence of lice in persons whose skins were naturally irritable. As the result of one or other of these abnormal conditions, scratching would follow, and then from this beginning the disease would continue and increase. There was one symptom, however, described by Hebra, which was very constant in prurigo, and that was enlargement of the glands in the lower part of Scarpa's triangle. The characteristic features of these enlarged glands were that the latter were quite indolent, showed no tendency to increase, and no inclination to soften and break down. But experience proved, according to Mr. Hutchinson, that when enlargement of the glands was present an unfavorable prognosis of the case could only be given. [In the patient under notice this symptom was marked.] It was a fact that many things increased the itching in these cases, and notably bile in the blood, and where diabetes was present. With respect to treatment, local remedies were only of use. Arsenic was powerless to effect any good. Strong solutions of tar, that is to say, the liquor carbonis detergens without any dilution, will be found to be of most value. Strict instructions, also, should be given as to diet. All fish should be forbidden, and anything which was found to cause irritation of the skin avoided. On the other hand, among other things, plenty of green vegetable could be allowed. The patient, in this case, whose occupation was that of a wood sawyer, denied ever having been troubled with pediculi, but admitted having had several attacks of gout, a fact which would tend, Mr. Hutchinson said, to increase the irritation.

The next case was one of varices of the legs. This patient was an old man of 75, both of whose legs showed a good deal of staining, with chronic œdema, and a number of small varices. The integument also was at one or two spots just beginning to ulcerate. In answer to the question whether he was accustomed to stand for many hours in the day, the man replied in the negative, his occupation being that of a clerk, during which he sat at a desk. This patient also admitted a gouty history, and Mr. Hutchinson remarked that is was the part of all gouty inflammations to be attended with vascular enlargement. The most marked features of gouty inflammation of the skin were duskiness of hue, œdema, and venous turgescence. There were, however, many worse things than gout. Gout often was found associated with longevity. The teeth of gouty people were generally, also, very good, while the nails were sound and strong.

The next case was an interesting one of perforation of the nasal septum. The patient was a young man of about 27, with a clear, ruddy complexion, in whom there was a perforation of the nasal septum, together with some necrosis of the alveolus above the canine tooth on the left side. It used formerly to be supposed that a perforated septum was always an indication of syphilis, but such a view was entirely erroneous, and in proof the patient under notice was a very interesting example. Some years ago, both Sir James Paget and Mr. Hutchinson pointed out in papers contributed to the medical journals that perforation of the septum occurred in tuberculous patients whose history was absolutely negative in respect to any syphilitic infection. The perforation in the present case was such that Mr. Hutchinson was able to pass a bent probe through one nostril and cause it to project through the other. The patient denied having had syphilis, and there were undoubted signs of his having suffered from tuberculous lesions. In the first place, there was a pucked scar on the cheek, just below the inferior and outer margin of the orbit, the result, in all probability, of a tuberculous periostitis with caries of the bone, followed by adhesion of the skin. Again, the little finger of the right hand was

merely represented by a stump, owing to exfoliation of the whole of the first phalanx. There was, moreover, thickening of the corresponding bone in the little finger of the left hand, and the patient stated that this finger recovered without any abscess forming, some years ago when his hands were affected. Over the middle of the metacarpal bone of the left thumb there was a deep cicatrised hole. All these lesions developed when the patient was about fifteen years of age. At that time he had been apprenticed to a saddler, and in the course of his trade he was required to hold between his knees a large contrivance, commonly seen in saddlers shops, for keeping the piece of work in position while the latter was being sewn. The result of the pressure applied by his knees was the development of a large abscess on the inner side of his right thigh, which, at the time, was opened, while on the left side, in the corresponding situation, a hard lump, freely movable, could now be felt, which was undoubtedly the calcified remains of an abscess. On inquiry, a strong family history of tuberculosis on his mother's side was elicited, a number of his maternal relations had died of phthisis. No lesion of the skin had developed in this case.

The last case was one of mercurial teeth. The patient, a young man of 23, came to show himself, whose teeth were typical of those which had suffered from the effects of the administration of mercury in early life. The enamel was defective, the teeth were thin and discolored, and the first molars, as was usually the case, wholly carious, while the bicuspids were fairly good. On inquiry it was elicited that he had had convulsions in infancy, for which so-called soothing powders were given containing mercury. Associated with convulsions it was common to find lamellar cataracts, and examination showed that in this patient this lesion was present, though not to a degree which interfered much with vision. There was no reason for supposing that the administration of the mercury had anything to do with the development of the opacities in the lenses.—*The Medical Press.*

## A NEW METHOD FOR REDUCTION OF FRACTURES OF THE LOWER END OF THE RADIUS.

The particular method of reducing fractures of the lower end of the radius, to be described, has proved so satisfactory during the past few years in my services at the Pennsylvania and Polyclinic Hospitals and elsewhere, and in the hands of others to whom I have frequently demonstrated it, that I now feel justified in giving it wider publicity. The method is as follows:

The surgeon stands in front of the patient and interlaces his fingers beneath the supinated wrist and palm of the injured member, so that his two index fingers lie crosswise beneath the lower end of the upper fragment of the radius. The palms of the surgeon's hands are then closed in upon the thenar and hypothenar portions of the patient's hand respectively, while the surgeon's thumbs rest parallel lengthwise upon the upwardly displaced lower fragment of the radius. The parts are thus firmly grasped by the surgeon while the following movements are made: The patient's wrist is excessively extended by carrying his hand upward. When hyper-extension has thus been secured the surgeon makes powerful traction upon the wrist in line of hyper-extension. While this traction is maintained the hand is suddenly carried into full flexion, and at the same time powerful downward pressure upon the upwardly displaced lower fragment of the radius is made by the surgeon's thumbs opposed by the interlaced index fingers beneath the lower end of the upper fragment.

The excessive extension of the first portion of the movement has always, so far in my experience, loosened or disentangled the displaced lower fragment, while the subsequent traction, flexion, and direct thumb-pressure have not yet failed to accurately force the lower fragment into its proper position. Separated epiphysis of the lower end of the radius is likewise easily reducible by this manipulation. For comminuted or complicated or very oblique fractures extension and moulding alone are called for in most instances.

Anesthesia is unnecessary for making a single effort at reduction by the proposed method. The patient does not anticipate what is coming, the two movements are made with lightning-like rapidity in a small fraction of a second, and, in nearly every case, perfect reduction has been accomplished before the patient realizes that he has been hurt. Should the manipulation fail to secure perfect reduction at the first attempt, I would not repeat the manœuvre until anesthesia had been induced, for the pain of repeating it would be intolerable. Failing in one effort, then, I would etherize and try again, first this, and afterward, if necessary, any other method that seemed advisable to secure perfect reduction. But thus far in cases that have been seen within a week of the accident I have never had to anesthetize since evolving the method mentioned; all have been reduced at the first attempt.

In cases older than one week, with displacement persisting, I anesthetized before making any effort at reduction. The new method may then first be resorted to, and will often be found the best means of performing refracture and reduction.

For making a diagnosis I have also found a modification of this method most useful. If the surgeon will take the hand and wrist in which fracture is suspected into his hands, as above

described, and, while the thumbs press firmly upon the lower end of the radius or first row of the carpus, make a series of gentle, quick, short flexions and extensions of the joint—rocking it through an arc of perhaps 25 or 30 degrees above and below the forearm as a horizontal plane—he will be astonished at the ease with which crepitus of the bone of the joint and of any small or large bony or cartilaginous fragment will be elicited. And, best of all, the diagnosis of these obscure fractures about the wrist can thus, after some practice, be brought out without giving unbearable pain to the patient. Indeed, I have often in this way, by the most gentle and practically painless manipulation, been able to clear up the nature of intricate injuries about the wrist.

By practising the method upon a normal wrist a sufficient degree of expertness can readily be acquired; by it joint crepitation can be brought out in any wrist. It is well, however, not to practice too much or too often upon the same extremity, as excessive stirring up of the joint contents might originate a synovitis.

In conclusion, the writer desires to say that he will be gratified to have reports of others who may be tempted to employ the method here put forth.—Thomas S. K. Morton, M.D., in *Maryland Med. Jour.*

---

NITRATE OF SILVER stains are easily removed by painting the part with iodine and then washing in dilute aqua ammonia.

FOR OBESITY.—Take no water or other fluid at any time, except one cup of any desired hot drink, just before rising from the table. Use no liquids while eating. Avoid sugar, nuts and pastry. Eat nothing between meals. Confine the diet to lean beef, mutton, chicken, turkey, fish, eggs, oysters, with one slice of stale bread well dipped, the bulk of the meal being of tomatoes, celery, spinach, turnips, cabbage leaf, but not the fleshy mid-rib, and fresh or dried fruits, cooked without sugar, such as apples, peaches, plums, prunes, prunellas. A little cheese is permissable; coffee, tea, skimmed milk or buttermilk after eating as stated. Exercise should be taken, running being most effectual, before breakfast or before going to bed.—*Times and Reg.*

DR. ANGELO DE BELLOMI, of Città di Amandola, Italy, July 22nd, 1893, says: "I am pleased to inform you of the successful results by the use of your Bromidia as hypnotic and sedative. I prescribed it for a lady suffering from severe vomiting due to pregnancy, and which threatened to cause abortion from denutrition. I had previously tried opium, chloroform, creasote, and oxalate of cerium, all without effect. I gave ten drops in a little sweet wine three times a day before meals. The vomiting ceased the first day, four days later I was able to discontinue the use of bromidia, and now, after a month, there has been no return of the vomiting, and the patient is perfectly well.

I have found Bromidia excellent in delirium tremens accompanied by insomnia, also in the delirium of typhoid, and in bronchitis with neural asthenia following influenza. In a case of chronic nephritis, where all kinds of hypnotics, and neuralgics and analgesics had failed to give relief, Bromidia, in doses of a teaspoonful morning and evening, gave relief at once; and in a few days effected a complete cure. After such encouraging results, I am sure Bromidia has a brilliant future before it.

THE TREATMENT OF MYALGIA.—We know a large number of affections better clinically than pathologically. One of these is that condition of peripheral soreness or painfulness, sometimes an affection of the muscles themselves or of their fibrous sheaths, sometimes involving the fibrous structures of joints, sometimes the peripheral sensory nerves. In the absence of definite knowledge as to the precise nature of cases of the kind referred to, I am in the habit of grouping them together under the common designation of myalgia, and have found the following formula of service in the treatment of a large number:

℞—Tinct. gauiac. ammoniat.,
Ext. cimicifugæ fluid.,
Ext. erythroxyli fluid., . . āā f℥j.—M.

A teaspoonful to be taken three times a day before meals.

When constipation co-exists, an equal proportion of fluid extract of cascara is added. I can warmly commend the employment of this combination under the conditions indicated.—*Coll. and Clin. Rec.*

DISLOCATION OF THE ATLAS ON THE AXIS, WITH ROTATION.—Dr. Cyrus Legg recorded the following phenomenal case in the *Lancet:* A young boy in playing leap-frog fell and struck his head in the angle formed by the trunk of a tree and the ground. His head was turned sharply to the left, when he was picked up and the chin lifted. The head was held immovably in this position. There was no pain on touching the lower vertebræ of the neck, but pressure against the upper two gave great pain, especially when it was made on the left side. Efforts of reduction of the dislocation by slightly lifting the head and twisting it to the right while the patient was seated proving of no avail, Dr. Legg laid the boy down, and while the body was held, succeeded in reducing the dislocation by a vigorous twist and jerk, the bone slipping back with a decided click.

# THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science, Criticism and News.**

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* ARTHUR A. ADAMS, Gen. Business Manager, 11 Colborne Street, Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, AUGUST, 1894.

**The LANCET has the Largest Circulation of any Medical Journal in Canada.**


## SUMMER COMPLAINT.

With the hot sultry season the usual quota of infantile diarrhœas makes its appearance, and the white crape and drawn blinds too frequently remind us of its disastrous effects on the infant population of our cities and large towns.

Few medical practitioners there are, but will be called upon to treat numbers of these cases, and many will doubtless see their best efforts, at times, prove futile, and their little patient slip through their fingers, as it were, in spite of all that medical science can suggest.

It will not be inopportune at this juncture to briefly consider this subject.

Generally speaking, the cause of these troubles is some error in the diet of an infant or young child during the hot weather.

The disease cannot well be confounded with anything else, if we but keep in mind the following diagnostic points, as given by Goodhart: "The fever, vomiting, number and appearance of the stools, the age, season and locality of occurrence, and almost epidemic prevalence of the disease."

As regards the management of these cases much has been written but they still present a sad fatality.

In this disease, above all others, so much can be done to prevent trouble, that it becomes the duty of every physician, to do what he can, by advising those who have the care of infants he may be brought into contact with professionally, as to the best means of escaping from these evils. Those who have the means of taking their little ones away from the city to the seaside or some watering place nearer home should do so; while less fortunate individuals may do much by regular bathing, good food, proper and clean clothing and beds, and by keeping the children during the day in the parks and public squares; an occasional, or still better, daily excursion, on a river or lake boat, combined with the above, will usually suffice to carry the baby safely over the dangerous period.

When an attack occurs immediate removal to the country or some watering place with strict attention to diet may, in itself, be sufficient to effect a cure.

Its effect is sometimes magical. The resort chosen should be near at hand, lest the journey prove fatiguing, but the change of air must be decided.

Should this be impracticable the child may be kept in the parks, or on the boat during the whole day, selecting a cool, shady spot.

The clothing should be as thin as possible, but always with woolen next the skin.

Frequent sponging with tepid water, or, if there be prostration, a full warm bath, will be found of great service.

With regard to diet definite rules should be laid down, as many mothers are prone to great errors in this direction. The thirst may be quenched by cold filtered water, in moderate quantities, or even small pieces of cracked ice may be allowed.

If the child be at the breast, the intervals of feeding should be restricted to every two or three hours, and the duration of nursing may be shortened as may seem advisable; the practice of putting the child to the breast every time it crys cannot be too strongly condemned. With hand fed children, cow's milk forms the basis of most foods, and may be prepared in a variety of ways. A useful preparation may easily be made by adding two parts of whey, previously boiled, to one part each of good cows milk, and lime water.

Should milk disagree, it must be stopped altogether and whey, chicken or mutton broth, raw beef juice, or barley water substituted. The medicinal treatment should be begun by a purgative, of which there is non better, for this purpose, than the old-time castor oil, which is cheap, handy, and efficient.

Should the stomach be irritable, and reject the oil, enemata must be used, consisting of pure water, or of water to which one-fourth part of lime water has been added. The injection should contain from one to two pints, according to age, and is best given with a fountain syringe.

Let the child lie on its left side, with the buttocks raised on a pillow, and gently knead the abdomen during the operation.

Having by these means cleansed the intestine of as much of its irritating matter as possible, mild antiseptics are indicated, in small and frequent doses.

Of these perhaps the best are salol, hydrarg. c. creta, sodium, salicylate naphthalin, and calomel.

The increased peristalsis and tenesmus may be greatly relieved by small doses of Dover's Powder. A good linseed meal poultice with a little mustard in it, made large enough to cover the whole surface of the abdomen, adds greatly to the comfort of the child, and does much to effect a cure. Irrigation of the large bowel, as already mentioned, may be carried out daily, and generally, after it has been done once or twice, meets with but little resistance from the child. If, however, it cause much straining, it had better be discontinued for a day or two.

When prostration sets in, stimulants must be administered in the form of brandy, or what is well taken, sp. vin. rect., flavoured with syrup of orange and diluted with water.

Cleanliness is a most essential part of the treatment; all soiled linen must be immediately removed, and the buttocks washed clean.

Frequent sponging or the whole bath is to be continued throughout, and the child allowed to lie in a clean cool bed, and not nursed on a hot lap or shoulder.

In the later stages when the condition of ulceration is reached, astringents by the mouth are not of much use, with the possible exception of bismuth.

This is a drug which is given in too small doses by many men; Osler says a child of one year can take, with benefit, five grains every hour.

The daily douche should still be continued, but with the addition of some astringent in small quantities, such as nitrate of silver, or tannic acid. The strictest supervision of diet and general hygiene must be maintained, and mild tonics, as wine of iron and elixir of cinchona, continued for some time.

## CANADIAN MEDICAL ASSOCIATION.

Elaborate preparations are being made in St. John, N. B., for the reception of the Canadian Medical Association on August 22nd and 23rd next. The gathering will probably be one of the largest the Association has ever had. From reports that come in from time to time it is believed that the profession of the Maritime Provinces will turn out almost to a man. From Montreal, Toronto, and parts further west there will be large delegations.

The following are some of the papers promised: "Cases in Practice," R. E. McKechnie, Nanaimo, B. C.; "A Year's Experience in Appendicitis," James Bell, Montreal; "A Case of Tuberculosis of Arm, of 14 Years' Standing, Cured by Inoculation with Erysipelas," W. S. Muir, Truro, N.S.; "The Treatment of Disease of the Ovaries and Fallopian Tubes," A. Lapthorn Smith, Montreal; "Intestinal Antisepsis in Typhoid Fever," D. A. Campbell, Halifax; "The Use and Abuse of the Various Cautery Agents in the Treatment of Nasal Affections," E. A. Kirkpatrick, Halifax, N. S.; "The Present Status of Asthenopia," F. Buller, Montreal; "Eye-strain Headaches, J. H. Morrison, St. John, N. B; "Note on Epilepsy," W. H. Hattie, Halifax, N.S.; "Influence of Mind on Disease," J. A. McLeay, Watford, Ont.; "Miners' Heart," R. A. H. McKeen, Cow Bay, Cape Breton, N. S.; "Address in Surgery," S. F. Black, Halifax, N. S.; ———————— E. A. Praeger, Nanaimo, B. C.; "Some Functional Derangements of the Liver," J. E. Graham, Toronto; "Treatment of Certain Forms of Uterine Hæmorrhage," F. T. Bibby, Port Hope; "Address in Medicine," Wm. Bayard, St. John, N.B.; "Ophthalmic and Aural Cases," Stephen Dodge, Halifax, N. S.

Papers will be read in the order in which they are received by Secretary. It is important that those intending to contribute papers should communicate with the Secretary at an early date.

*Officers for 1893-4.*—President—T. T. S. Harrison, Selkirk, Ont. Vice-Presidents—For Ontario, F. R. Eccles, London; Quebec, J. Stewart, Montreal; New Brunswick, J. Christie, St. John; Nova Scotia, W. S. Muir, Truro; Manitoba, R. Spencer, Brandon; North-West Territories, E. H. Mewburn, Lethbridge; Prince Edward Island, F.

B. Taylor, Charlottetown; British Columbia, R. E. McKechnie, Nanaimo. General Secretary—F. N. G. Starr, Toronto. Local Secretaries—For Ontario, I. Olmsted, Hamilton; Quebec, J. V. Anglin, Montreal; New Brunswick, M. McLaren, St. John; Nova Scotia, R. A. H. McKeen, Cow Bay; Manitoba, A. McDiarmid, Winnipeg; N. W. T., —. Calder, Medicine Hat; P. E. I., —. Johnston, Charlottetown; B. C., —. Walker, New Westminster. Treasurer—H. B. Small, Ottawa.

Co-existence of Infectious Diseases in the Same Individual.—Edward Carmichael, M.D., M.R.C.P., Edin., cites the following interesting case in the *Lancet* of May 19th, 1894:

The patient, a boy six years of age, had been ill for four days before I saw him, suffering from sore throat, vomiting, and a slight rash. I suspected it might prove to be a case of scarlet fever. The boy was still feverish, although no rash was to be seen, and accordingly I looked for desquamation. This soon appeared and confirmed the diagnosis. What puzzled me was the temperature still remaining high. Diarrhœa set in, then splenic enlargement, but there were no spots on the abdomen. The enlargement of the spleen became so marked and the anæmia so profound that I began to fear I had to do with an acute case of leucocythæmia. Dr. Claud Muirhead kindly saw the boy in consultation with me, and after examination was inclined to think it might be leucocythæmia, but thought I should still keep typhoid fever in view seeing the microscopic examination of the blood showed no very marked increase of leucocytes. After a prolonged illness the spleen began to diminish, the diarrhœa to cease, and a slow but steady recovery ensued, thus putting leucocythæmia out of the question. The interesting and, as I have said, unique point was that this boy infected his sister, whom we had to keep in the house, with a distinct and typical scarlet fever which set in about ten days after my visits began; and some weeks after the father, while helping to nourish the boy, went through a typical typhoid fever, with the usual temperature curve, rash, and diarrhœa, so that my diagnosis was that the boy had both scarlet fever and typhoid fever, that he gave the one to his sister and the other to his father. All three patients recovered. No defective drainage or water or milk supply could be traced, but I found that a day or to before the illness began the boy had let a key fall through a grating of the street gutter, to recover which he lifted the grating, lay down and scraped among the *débris*.

The Forms of Peritonitis, their Relation to Appendicitis, and the Etiology of each.—Roswell Park, A.M., M.D., *Medical Age*, January 25, 1894, considers that failure of diagnosing the lesion of appendicitis is best explained upon the following grounds:

1. To the very common and early diffusion of pain with which many of these cases begin, even those where the phenomena subsequently become strongly localized. This is not always due to ignorance on the part of the patient, for many intelligent people are unable to indicate the place where they first feel the pain of which they so bitterly complain.

2. To the frequent insidiousness of the disease itself, and especially in many of those cases in which pus forms.

3. To carelessness in the first examination, and to failure to appreciate the real nature of the lesion in true appendicitis. This is purely a matter of ignorance, and concerns mainly those men—their number very rapidly diminishing—who diagnosticate all these cases as inflammation of the bowels.

4. To failure to recognize the induration or tumor in the right ileo-cæcal region, which failure may sometimes be well excused because of the distention of the abdomen, the acute sensibility of the part, and the pain which the slightest manipulation produces; in other words, to the impossibility of proper examination.

5. To the fact that some of these cases present, almost from the outset, common signs and symptoms of primary obstruction of the bowels, and that the diagnosis once made by the attendant is not altered to suit the other aspects of the case as they develop. This surgeon thinks that we must have charity for those who make this mistake, because to his knowledge it has been made by good and competent general practitioners.

Dr. Park has learned to believe that,—

1. There is no such thing as idiopathic peritonitis. Every so-called case has a definite origin, which, however, it may not be always possible easily to determine.

2. Many cases of non-traumatic peritonitis have their origin in the female pelvic organs, and are usually caused by the staphylococcus and streptococcus; but some of them are really cases of colon infection.

3. Those cases which depend upon perforation after ulceration, escape of gall-stone into the peritoneal cavity, and lesions of this general nature fall into the septic or putrid forms.

4. Peritonitis due to internal obstruction or strangulated hernia is usually due to infection by the colon bacillus.

5. Cases of peritonitis which do not originate in the manner already referred to, almost invariably proceed from the appendix vermiformis, and of all these a larger proportion are cases of pure infection by the colon bacillus.

6. The larger proportion of these are fatal unless surgical procedures are used.

7. In every case of peritonitis for which obvious cause is lacking, the ileo-cæcal region should be carefully examined, if suspected, should be explored, and this exploration may well be made under an anæsthetic with all conveniences at hand for the most formidable kind of operative procedure.

Medical Notes.—Never give ergot while there is anything inside the womb.

Hot water is an efficient, omni-present and reliable hæmostatic.

Sulphate of soda is a correct chemical antidote to carbolic acid poisoning.

In acute intestinal obstruction look to the small intestine; in chronic, to the large.

Repeated small rectal injections will relieve the intense thirst following abdominal operations.

Lavage of the stomach with pure water will often rouse the patient from the milder degrees of uremic coma.

Do not neglect the use of the arsenite of copper in the treatment of the acute watery diarrhœas of infancy and childhood.—*Medical Summary.*

Fatal Ivy Poisoning.—Five school boys *(N. Y. Med. Rec.)* died during the past week at Tarrytown, N.Y., the result of eating the root of Rhus Toxicodendron. The symptoms of the poisoning were: stupor, dilatation of pupils, nausea, thirst, feeble, irregular pulse, tremors, convulsions, and finally collapse. We are not aware of any similar cases resulting in death.

Management of Sycosis.—Clip the beard very close *(Medical Age)*, when an excellent soothing application is Lassar's paste, made as follows: Starch and zinc oxide, each two drachms; salicylic acid, fifteen grains; vaseline, one ounce. Before application, the crust should be removed by soaking with oil and washing with soap and water.

Local Anæsthesia.—A mixture of ten parts *(Medical Age)* of chloroform, fifteen parts of ether, and one part of menthol, used as a spray, is recommended as an excellent and prompt means for obtaining local anæsthesia lasting for about five minutes.

For Laryngismus Stridulus.—*Med. Press and Circular*—

℞—Chloral. hydratis, . . . . ℥ss.
Potassii bromidi, . . . . ℥ij.
Syr. tolutan, . . . . . f ℥iv.
Aquæ menthæ piper, . . . f ℥ss.—M.
Sig.—℥j every hour.

Insect Bites *(Medical Age)*:

℞—Ammonia water, . . 45 minims.
Collodion, . . . . . 15 minims.
Salicylic acid, . . . . 1½ grains.
One drop to be applied to each spot affected.

## Books and Pamphlets.

Extracts from Johns Hopkins' Hospital Reports. By Wm. Osler, M.D., containing: I. A General Analysis of 229 cases of Typhoid Fever. II. The Treatment of Typhoid Fever. III. A Study of the Fatal cases. IV. Special Symptoms, Complications and Sequelæ. V. "The Typhoid Spine." VI. Typhoid Fever in Baltimore.

Index Catalogue of the Library of the Surgeon-General's Office Library. Vol. XV.

The Army Surgeon. By Wm. Osler, M.D.

Tenosuture and Tendon Elongation and Shortening by Open Incision; Advantages and Disadvantages of the various methods. Clinical lecture delivered at Jefferson Medical College Hospital, by H. Augustus Wilson, M. D.

(3) 2714 4

BINDING ... MAR 16 1971

R
11
C3
v.26

The Canada lancet

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE